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<210> 5896

<211> 261

<212> PRT

<213> Homo sapiens

<400> 5896

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Glu Ser Thr Met Val Ala Ile Ala Ala Cys Tyr Val Tyr Arg Lys Gln		
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Lys Lys Lys Met Glu Asn Glu Ser Ala Thr Glu Gly Glu Asp Ser Ala		
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<210> 5897

<211> 1930

<212> DNA

<213> Homo sapiens

<400> 5897

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<210> 5898
 <211> 242
 <212> PRT
 <213> Homo sapiens

<400> 5898
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 50 55 60
 Thr Asn Asn Asp Pro Gly Leu Phe Val Tyr Cys Cys Asp Phe Ser Ser
 65 70 75 80
 Thr Ala Ile Glu Leu Val Gln Thr Asn Ser Glu Tyr Asp Pro Ser Arg
 85 90 95
 Cys Phe Ala Phe Val His Asp Leu Cys Asp Glu Glu Lys Ser Tyr Pro
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 Val Pro Lys Gly Ser Leu Asp Ile Ile Leu Ile Phe Val Leu Ser
 115 120 125
 Ala Ile Val Pro Asp Lys Met Gln Lys Ala Ile Asn Arg Leu Ser Arg

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Asp	Met Ala Gln Leu Arg Phe Lys Lys Gly Gln Cys Leu Ser Gly Asn			
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Phe	Tyr Val Arg Gly Asp Gly Thr Arg Val Tyr Phe Phe Thr Gln Glu			
	180	185	190	
Glu	Leu Asp Thr Leu Phe Thr Thr Ala Gly Leu Glu Lys Val Gln Asn			
	195	200	205	
Leu	Val Asp Arg Arg Leu Gln Val Asn Arg Gly Lys Gln Leu Thr Met			
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<210> 5899
<211> 1589
<212> DNA
<213> Homo sapiens

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<210> 5900
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 <212> PRT
 <213> Homo sapiens

<400> 5900
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 65 70 75 80
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 Arg Pro Asp Asp Ile His Leu Leu Tyr Ser Gly Lys Thr Val Glu Ile
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 Tyr Ala Cys Lys Asp Leu Gly Ala Asp Ile Ile Leu Asp Met Ala Thr
 180 185 190
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Lys Cys Gly Asp Leu Val His Pro	Leu Val Tyr Cys Pro	Glu Leu His
225	230	235
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Asp Arg Asp Asn Ser Pro Ser Ser	Cys Ala Gly Leu Phe Ile	Ala Ser
260	265	270
His Ile Gly Phe Asp Trp Pro	Gly Val Trp Val His	Leu Asp Ile Ala
275	280	285
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290	295	300
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<210> 5901

<211> 984

<212> DNA

<213> Homo sapiens

<400> 5901

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<210> 5902
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<212> PRT
<213> Homo sapiens

<400> 5902

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Glu	Ile	Glu	Ala	Lys	Leu	Asp	Lys	Leu	Val	Lys	Leu	Cys	Ser	Gly	Met
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Gly	Val	Arg	Asp	Leu	Ser	Gln	Gln	Cys	Gln	Gly	Asp	Thr	Val	Ile	Ser
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His	Met	Ile	Leu	Phe	Asp	Gln	Ala	Gln	Arg	Ser	Val	Arg	Gln	Gln	Leu
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<210> 5903
<211> 3734
<212> DNA
<213> Homo sapiens

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4200
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4343

<210> 5910

<211> 899
<212> PRT
<213> Homo sapiens

<400> 5910
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Gly Ser Phe Gly Ala Val Tyr Phe Ala Thr Asn Ala His Thr Ser Glu
35 40 45
Val Val Ala Ile Lys Lys Met Ser Tyr Ser Gly Lys Gln Thr His Glu
50 55 60
Lys Trp Gln Asp Ile Leu Lys Glu Val Phe Leu Arg Gln Leu Lys
65 70 75 80
His Pro Asn Thr Ile Glu Tyr Lys Gly Cys Tyr Leu Lys Glu His Thr
85 90 95
Ala Trp Leu Val Met Glu Tyr Cys Leu Gly Ser Ala Ser Asp Leu Leu
100 105 110
Glu Val His Lys Pro Leu Gln Glu Val Glu Ile Ala Ala Ile Thr
115 120 125
His Gly Ala Leu His Gly Leu Ala Tyr Leu His Ser His Ala Leu Ile
130 135 140
His Arg Asp Ile Lys Ala Gly Asn Ile Leu Leu Thr Glu Pro Gly Gln
145 150 155 160
Val Lys Leu Ala Asp Phe Gly Ser Ala Ser Met Ala Ser Pro Ala Asn
165 170 175
Ser Phe Val Gly Thr Pro Tyr Trp Met Ala Pro Glu Val Ile Leu Ala
180 185 190
Met Asp Glu Gly Gln Tyr Asp Gly Lys Val Asp Ile Trp Ser Leu Gly
195 200 205
Ile Thr Cys Ile Glu Leu Ala Glu Arg Lys Pro Pro Leu Phe Asn Met
210 215 220
Asn Ala Met Ser Ala Leu Tyr His Ile Ala Gln Asn Asp Ser Pro Thr
225 230 235 240
Leu Gln Ser Asn Glu Trp Thr Asp Ser Phe Arg Arg Phe Val Asp Tyr
245 250 255
Cys Leu Gln Lys Ile Pro Gln Glu Arg Pro Thr Ser Ala Glu Leu Leu
260 265 270
Arg His Asp Phe Val Arg Arg Asp Arg Pro Leu Arg Val Leu Ile Asp
275 280 285
Leu Ile Gln Arg Thr Lys Asp Ala Val Arg Glu Leu Asp Asn Leu Gln
290 295 300
Tyr Arg Lys Met Lys Lys Ile Leu Phe Gln Glu Thr Arg Asn Gly Pro
305 310 315 320
Leu Asn Glu Ser Gln Glu Asp Glu Glu Asp Ser Glu His Gly Thr Ser
325 330 335
Leu Asn Arg Glu Met Asp Ser Leu Gly Ser Asn His Ser Ile Pro Ser
340 345 350
Met Ser Val Ser Thr Gly Ser Gln Ser Ser Ser Val Asn Ser Met Gln
355 360 365
Glu Val Met Asp Glu Ser Ser Ser Glu Leu Val Met Met His Asp Asp
370 375 380
Glu Ser Thr Ile Asn Ser Ser Ser Val Val His Lys Lys Asp His

385	390	395	400
Val Phe Ile Arg Asp Glu Ala Gly His Gly Asp Pro Arg Pro Glu Pro			
405	410	415	
Arg Pro Thr Gln Ser Val Gln Ser Gln Ala Leu His Tyr Arg Asn Arg			
420	425	430	
Glu Arg Phe Ala Thr Ile Lys Ser Ala Ser Leu Val Thr Arg Gln Ile			
435	440	445	
His Glu His Glu Gln Glu Asn Glu Leu Arg Glu Gln Met Ser Gly Tyr			
450	455	460	
Lys Arg Met Arg Arg Gln His Gln Lys Gln Leu Ile Ala Leu Glu Asn			
465	470	475	480
Lys Leu Lys Ala Glu Met Asp Glu His Arg Leu Lys Leu Gln Lys Glu			
485	490	495	
Val Glu Thr His Ala Asn Asn Ser Ser Ile Glu Leu Glu Lys Leu Ala			
500	505	510	
Lys Lys Gln Val Ala Ile Ile Glu Lys Glu Ala Lys Val Ala Ala Ala			
515	520	525	
Asp Glu Lys Lys Phe Gln Gln Gln Ile Leu Ala Gln Gln Lys Lys Asp			
530	535	540	
Leu Thr Thr Phe Leu Glu Ser Gln Lys Lys Gln Tyr Lys Ile Cys Lys			
545	550	555	560
Glu Lys Ile Lys Glu Glu Met Asn Glu Asp His Ser Thr Pro Lys Lys			
565	570	575	
Glu Lys Gln Glu Arg Ile Phe Lys His Lys Glu Asn Leu Gln His Thr			
580	585	590	
Gln Ala Glu Glu Ala His Leu Leu Thr Ser Thr Gly Asp Trp Thr			
595	600	605	
Thr Thr Lys Asn Cys Arg Phe Phe Lys Arg Lys Ile Met Ile Lys Arg			
610	615	620	
His Glu Val Glu Gln Gln Asn Ile Arg Glu Glu Leu Asn Lys Lys Arg			
625	630	635	640
Thr Met Lys Glu Met Glu His Ala Met Leu Ile Arg His Asp Glu Ser			
645	650	655	
Thr Arg Glu Leu Glu Tyr Arg Gln Leu His Thr Leu Gln Lys Leu Arg			
660	665	670	
Met Asp Leu Ile Arg Leu Gln His Gln Thr Glu Leu Glu Asn Gln Leu			
675	680	685	
Glu Tyr Asn Lys Arg Arg Glu Arg Glu Leu His Arg Lys His Val Met			
690	695	700	
Glu Leu Arg Gln Gln Pro Lys Asn Leu Lys Ala Met Glu Met Gln Ile			
705	710	715	720
Lys Lys Gln Phe Gln Asp Thr Cys Lys Val Gln Thr Lys Gln Tyr Lys			
725	730	735	
Ala Leu Lys Asn His Gln Leu Glu Val Thr Pro Lys Asn Glu His Lys			
740	745	750	
Thr Ile Leu Lys Thr Leu Lys Asp Glu Gln Thr Arg Lys Leu Ala Ile			
755	760	765	
Leu Ala Glu Gln Tyr Glu Gln Ser Ile Asn Glu Met Met Ala Ser Gln			
770	775	780	
Ala Leu Arg Leu Asp Glu Ala Gln Glu Ala Glu Cys Gln Ala Leu Arg			
785	790	795	800
Leu Gln Leu Gln Gln Glu Met Glu Leu Leu Asn Ala Tyr Gln Ser Lys			
805	810	815	
Ile Lys Met Gln Thr Glu Ala Gln His Glu Arg Glu Leu Gln Lys Leu			

820	825	830
Glu Gln Arg Val Ser Leu Arg Arg Ala His Leu Glu Gln Lys Ile Glu		
835	840	845
Glu Glu Leu Ala Ala Leu Gln Lys Glu Arg Ser Glu Arg Ile Lys Asn		
850	855	860
Leu Leu Glu Arg Gln Glu Arg Glu Ile Glu Thr Phe Asp Met Glu Ser		
865	870	875
Leu Arg Met Gly Phe Gly Asn Leu Val Thr Leu Asp Phe Pro Lys Glu		880
885	890	895
Asp Tyr Arg		

<210> 5911
<211> 645
<212> DNA
<213> Homo sapiens

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120
cccgacggtg gtactccagc aggtacttca agtccagctt cttcatcttc cttctcaac
180
agacttcagc ttgatgtatga tattgtatggt gagactagag atctttcgat tatagtcgat
240
gatccaaaga agcatgtgtg tacaatggag acttacatca cctataggat caccaccaa
300
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360
gactgggtga ggagcaaact ggaagaatcc cagcccactc atctcattcc cctcttccc
420
gagaagtttg tggtaaaagg tggtgtggat cgtttttcag aagagtttgt ggagaccaga
480
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540
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645

<210> 5912
<211> 211
<212> PRT
<213> Homo sapiens

<400> 5912
Asp Gly Lys Pro Glu Ile Pro Val Leu Cys Phe Ala His Ala Gly Ser
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Cys Arg Pro Glu Leu Phe Leu Phe Gly Asn Leu Gly Ser Ser Ala Glu
20 25 30
Asp Leu Ile Leu Pro Asp Gly Gly Thr Pro Ala Gly Thr Ser Ser Pro
35 40 45
Ala Ser Ser Ser Ser Leu Leu Asn Arg Leu Gln Leu Asp Asp Asp Ile

50	55	60	
Asp	Gly	Glu	
Thr	Arg	Asp	
Leu	Phe	Val	
Ile	Val	Asp	
Asp	Pro	Lys	
65	70	75	80
His	Val	Cys	Thr
Met	Glu	Thr	Tyr
Ile	Thr	Tyr	Arg
Ile	Thr	Thr	Lys
85	90	95	
Ser	Thr	Arg	Val
Glu	Phe	Asp	Leu
Pro	Glu	Tyr	Ser
100	105	110	
Tyr	Gln	Asp	Phe
Asp	Trp	Leu	Arg
Ser	Lys	Leu	Glu
Glu	Ser	Gln	Pro
115	120	125	
Thr	His	Leu	Ile
Pro	Pro	Leu	Pro
Glu	Lys	Phe	Val
Val	Val	Lys	Gly
130	135	140	
Val	Asp	Arg	Phe
Ser	Glu	Glu	Phe
Val	Glu	Thr	Arg
145	150	155	160
Asp	Lys	Phe	Leu
Lys	Arg	Ile	Thr
Asp	His	Pro	Val
165	170	175	
Glu	His	Phe	Asn
Ile	Ala	Leu	Thr
Ala	Lys	Asp	Leu
180	185	190	
Lys	Gln	Gly	Ile
Ala	Leu	Leu	Thr
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Val	Thr	Arg	
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<210> 5913
<211> 2495
<212> DNA
<213> Homo sapiens

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120
tgagattcga accctggtca aacagacttt ccattttgtt ccactgactc agtcttcct
180
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300
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360
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420
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480
gtggtagttt gggaggtttt cctgaggtcc tttccatcc tgagactctg gtttccatt
540
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660
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720
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780

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gaagacatgt ttgatgcctt agaaggcaaa tccatcaaaa gtttaacttct gggcagatga
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1380
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2280
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2400

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2495

<210> 5914
<211> 158
<212> PRT
<213> Homo sapiens

<400> 5914
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Cys Cys Glu Gly Tyr Ser Tyr His Val Val Ser Trp Glu Val Phe Leu
20 25 30
Arg Ser Phe Ser Ile Leu Arg Leu Trp Phe Ser Ile Leu Phe Leu Thr
35 40 45
Gly Gln Gly Phe Asp Arg His Leu Phe Ala Leu Arg His Leu Ala Ala
50 55 60
Ala Xaa Gly Ile Ile Leu Pro Glu Leu Tyr Leu Asp Pro Ala Tyr Gly
65 70 75 80
Gln Ile Asn His Asn Val Leu Ser Thr Ser Thr Leu Ser Ser Pro Ala
85 90 95
Val Asn Xaa Cys Arg Phe Ala Pro Val Val Ser Asp Ala Phe Gly Val
100 105 110
Gly Tyr Ala Val His Asp Asn Trp Ile Gly Cys Asn Val Ser Ser Tyr
115 120 125
Pro Gly Arg Asn Ala Arg Glu Phe Leu Gln Cys Val Glu Lys Ala Xaa
130 135 140
Glu Asp Met Phe Asp Ala Leu Glu Gly Lys Ser Ile Lys Ser
145 150 155

<210> 5915
<211> 457
<212> DNA
<213> Homo sapiens

<400> 5915
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120
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180
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240
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300
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360
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457

<210> 5916
<211> 152
<212> PRT
<213> Homo sapiens

<400> 5916
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Arg Met Val Tyr Glu Met Val Gln Arg Ile Leu Leu Ser Thr Arg Gly
20 25 30
Tyr Val Asn Phe Val Asn Glu Val Phe His Gln Ala Phe Leu Leu Pro
35 40 45
Ser Cys Glu Ile Ala Val Thr Arg Lys Val Val Gln Val Tyr Arg Lys
50 55 60
Trp Ile Leu Gln Asp Pro Val Phe Met Glu Glu Pro Asp Arg Lys
65 70 75 80
Asp Val Ala Gln Glu Asp Ala Glu Lys Leu Gly Phe Ser Glu Thr Asp
85 90 95
Ser Lys Glu Ala Ser Ser Glu Ser Ser Gly His Lys Arg Ser Ser Ser
100 105 110
Trp Gly Arg Thr Tyr Ser Phe Thr Ser Ala Met Ser Arg Gly Cys Val
115 120 125
Thr Glu Glu Glu Asn Thr Asn Val Lys Ala Gly Val Gln Ala Leu Leu
130 135 140
Gln Val Phe Leu Ala Asn Ser Ala
145 150

<210> 5917
<211> 3727
<212> DNA
<213> Homo sapiens

<400> 5917
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120
ccccatgcgg cgcgccacag ggagccagga cctgtgcgca ggcccatgcg caagtccctc
180
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240
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300
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360
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420
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480
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600

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660
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720
cacctgacga cattaacca tcaggagcag gcgactattt ttgaagaggt tcagaaattg
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960
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1080
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1260
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1320
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1620
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1680
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2160
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3360
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3480
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3540
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3727

<210> 5918

<211> 981
<212> PRT
<213> Homo sapiens

<400> 5918
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Ser Glu Ser Pro Arg Pro Asn Pro Pro His Ala Ala Arg His Arg Glu
35 40 45
Pro Gly Pro Val Arg Arg Pro Met Arg Lys Ser Phe Ser Gln Pro Gly
50 55 60
Leu Arg Ser Leu Ala Phe Arg Lys Glu Leu Gln Asp Gly Gly Leu Arg
65 70 75 80
Ser Ser Gly Phe Ser Ser Phe Glu Glu Ser Asp Ile Glu Asn His
85 90 95
Leu Ile Ser Gly His Asn Ile Val Gln Pro Thr Asp Ile Glu Glu Asn
100 105 110
Arg Thr Met Leu Phe Thr Ile Gly Gln Ser Glu Val Tyr Leu Ile Ser
115 120 125
Pro Asp Thr Lys Lys Ile Ala Leu Glu Lys Asn Phe Lys Glu Ile Ser
130 135 140
Phe Cys Ser Gln Gly Ile Arg His Val Asp His Phe Gly Phe Ile Cys
145 150 155 160
Arg Glu Ser Ser Gly Gly Gly Phe His Phe Val Cys Tyr Val Phe
165 170 175
Gln Cys Thr Asn Glu Ala Leu Val Asp Glu Ile Met Met Thr Leu Lys
180 185 190
Gln Ala Phe Thr Val Ala Ala Val Gln Gln Thr Ala Lys Ala Pro Ala
195 200 205
Gln Leu Cys Glu Gly Cys Pro Leu Gln Ser Leu His Lys Leu Cys Glu
210 215 220
Arg Ile Glu Gly Met Asn Ser Ser Lys Thr Lys Leu Glu Leu Gln Lys
225 230 235 240
His Leu Thr Thr Leu Thr Asn Gln Glu Gln Ala Thr Ile Phe Glu Glu
245 250 255
Val Gln Lys Leu Arg Pro Arg Asn Glu Gln Arg Glu Asn Glu Leu Ile
260 265 270
Ile Ser Phe Leu Arg Cys Leu Tyr Glu Glu Lys Gln Lys Glu His Ile
275 280 285
His Ile Gly Glu Met Lys Gln Thr Ser Gln Met Ala Ala Glu Asn Ile
290 295 300
Gly Ser Glu Leu Pro Pro Ser Ala Thr Arg Phe Arg Leu Asp Met Leu
305 310 315 320
Lys Asn Lys Ala Lys Arg Ser Leu Thr Glu Ser Leu Glu Ser Ile Leu
325 330 335
Ser Arg Gly Asn Lys Ala Arg Gly Leu Gln Glu His Ser Ile Ser Val
340 345 350
Asp Leu Asp Ser Ser Leu Ser Ser Thr Leu Ser Asn Thr Ser Lys Glu
355 360 365
Pro Ser Val Cys Glu Lys Glu Ala Leu Pro Ile Ser Glu Ser Ser Phe
370 375 380
Lys Leu Leu Gly Ser Ser Glu Asp Leu Ser Ser Asp Ser Glu Ser His

385	390	395	400
Leu Pro Glu Glu Pro Ala Pro Leu Ser Pro Gln Gln Ala Phe Arg Arg			
405	410	415	
Arg Ala Asn Thr Leu Ser His Phe Pro Ile Glu Cys Gln Glu Pro Pro			
420	425	430	
Gln Pro Ala Arg Gly Ser Pro Gly Val Ser Gln Arg Lys Leu Met Arg			
435	440	445	
Tyr His Ser Val Ser Thr Glu Thr Pro His Glu Arg Lys Asp Phe Glu			
450	455	460	
Ser Lys Ala Asn His Leu Gly Asp Ser Gly Gly Thr Pro Val Lys Thr			
465	470	475	480
Arg Arg His Ser Trp Arg Gln Gln Ile Phe Leu Arg Val Ala Thr Pro			
485	490	495	
Gln Lys Ala Cys Asp Ser Ser Ser Arg Tyr Glu Asp Tyr Ser Glu Leu			
500	505	510	
Gly Glu Leu Pro Pro Arg Ser Pro Leu Glu Pro Val Cys Glu Asp Gly			
515	520	525	
Pro Phe Gly Pro His Gln Arg Lys Arg Lys Gly His Leu Val Ser Ser			
530	535	540	
Glu Ser Cys Gly Lys Gly Leu Phe Phe Asn Arg Tyr Cys Xaa Leu Arg			
545	550	555	560
Met Glu Lys Glu Asn Gln Lys Leu Gln Ala Ser Glu Asn Asp Leu Leu			
565	570	575	
Asn Lys Arg Leu Lys Leu Asp Tyr Glu Glu Ile Thr Pro Cys Leu Lys			
580	585	590	
Glu Val Thr Thr Val Trp Glu Lys Met Leu Ser Thr Pro Gly Arg Ser			
595	600	605	
Lys Ile Lys Phe Asp Met Glu Lys Met His Ser Ala Val Gly Gln Gly			
610	615	620	
Val Pro Arg His His Arg Gly Glu Ile Trp Lys Phe Leu Ala Glu Gln			
625	630	635	640
Phe His Leu Lys His Gln Phe Pro Ser Lys Gln Pro Lys Asp Val			
645	650	655	
Pro Tyr Lys Glu Leu Leu Lys Gln Leu Thr Ser Gln Gln His Ala Ile			
660	665	670	
Leu Ile Asp Leu Gly Arg Thr Phe Pro Thr His Pro Tyr Phe Ser Ala			
675	680	685	
Gln Leu Gly Ala Gly Gln Leu Ser Leu Tyr Asn Ile Leu Lys Ala Tyr			
690	695	700	
Ser Leu Leu Asp Gln Glu Val Gly Tyr Cys Gln Gly Leu Ser Phe Val			
705	710	715	720
Ala Gly Ile Leu Leu Leu His Met Ser Glu Glu Glu Ala Phe Lys Met			
725	730	735	
Leu Lys Phe Leu Met Phe Asp Met Gly Leu Arg Lys Gln Tyr Arg Pro			
740	745	750	
Asp Met Ile Ile Leu Gln Ile Gln Met Tyr Gln Leu Ser Arg Leu Leu			
755	760	765	
His Asp Tyr His Arg Asp Leu Tyr Asn His Leu Glu Glu His Glu Ile			
770	775	780	
Gly Pro Ser Leu Tyr Ala Ala Pro Trp Phe Leu Thr Met Phe Ala Ser			
785	790	795	800
Gln Phe Pro Leu Gly Phe Val Ala Arg Val Phe Asp Met Ile Phe Leu			
805	810	815	
Gln Gly Thr Glu Val Ile Phe Lys Val Ala Leu Ser Leu Leu Gly Ser			

820	825	830
His Lys Pro Leu Ile Leu Gln His	Glu Asn Leu Glu Thr Ile Val Asp	
835	840	845
Phe Ile Lys Ser Thr Leu Pro Asn Leu Gly Leu Val Gln Met Glu Lys		
850	855	860
Thr Ile Asn Gln Val Phe Glu Met Asp Ile Ala Lys Gln Leu Gln Ala		
865	870	880
Tyr Glu Val Glu Tyr His Val Leu Gln Glu Glu Leu Ile Asp Ser Ser		
885	890	895
Pro Leu Ser Asp Asn Gln Arg Met Asp Lys Leu Glu Lys Thr Asn Ser		
900	905	910
Ser Leu Arg Lys Gln Asn Leu Asp Leu Leu Glu Gln Leu Gln Val Ala		
915	920	925
Asn Gly Arg Ile Gln Ser Leu Glu Ala Thr Ile Glu Lys Leu Leu Ser		
930	935	940
Ser Glu Ser Lys Leu Lys Gln Ala Met Leu Thr Leu Glu Leu Glu Arg		
945	950	955
Ser Pro Ala Ala Asp Gly Gly Ala Ala Ala Ala Glu Arg Arg Ala		
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Gln Arg Pro Gly Ala		
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<210> 5919
<211> 1320
<212> DNA
<213> Homo sapiens

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180
ccctctgttc ttccgagagga cctgggtcaa ctggaaataca agtttcagca gcctcgctt
240
acagcgtgac tgcaaagaaaa aagacttttg ttttgcaaaa gaaaagcgc tcggtgactc
300
cgccacatc gcccacatc agtcagatgg cagtgccagt cctttgccag tggaaggagt
360
tcctgctaag gggaggtgca ggaggactaa ttttatttttg tgcaactgcc agtcctgcgc
420
atcccagcta cgctaagcgc cctgcccagg caegtaacaa aacatagacc tgtttgaag
480
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720
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780

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 1080
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<210> 5920
 <211> 93
 <212> PRT
 <213> Homo sapiens

<400> 5920
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 Gly Val Gly Pro Trp Arg Gly Trp Lys Thr Thr Trp His Leu Gly Gly
 35 40 45
 Gly Ala Thr Gly Ser Gly Arg Ala Trp Ala Ala Glu Lys Phe Arg Gly
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 Leu Gln Glu Arg Ala Glu Arg Val Pro Pro Arg Ser Cys Glu Arg His
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<210> 5921
 <211> 4130
 <212> DNA
 <213> Homo sapiens

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 cctattactc atcaactggc atcttggtcc tccagtactt ttgggttgg gtctcctgaa
 240
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 300

gatggtcagt acctggcgct ggggatgttc aatgggatca tcagcatacg gaacaaaaat
360
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840
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<210> 5922
 <211> 1252
 <212> PRT
 <213> Homo sapiens

<400> 5922
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 Lys Ser Val Ile Ile Trp Thr Ser Lys Leu Glu Gly Ile Leu Lys Tyr
 35 40 45
 Thr His Asn Asp Ala Ile Gln Cys Val Ser Tyr Asn Pro Ile Thr His
 50 55 60
 Gln Leu Ala Ser Cys Ser Ser Ser Asp Phe Gly Leu Trp Ser Pro Glu
 65 70 75 80
 Gln Lys Ser Val Ser Lys His Lys Ser Ser Ser Lys Ile Ile Cys Cys
 85 90 95
 Ser Trp Thr Asn Asp Gly Gln Tyr Leu Ala Leu Gly Met Phe Asn Gly
 100 105 110
 Ile Ile Ser Ile Arg Asn Lys Asn Gly Glu Glu Lys Val Lys Ile Glu
 115 120 125
 Arg Pro Gly Gly Ser Leu Ser Pro Ile Trp Ser Ile Cys Trp Asn Pro
 130 135 140
 Ser Ser Arg Trp Glu Ser Phe Trp Met Asn Arg Glu Asn Glu Asp Ala
 145 150 155 160
 Glu Asp Val Ile Val Asn Arg Tyr Ile Gln Glu Ile Pro Ser Thr Leu
 165 170 175
 Lys Ser Ala Val Tyr Ser Ser Gln Gly Ser Glu Ala Glu Glu Glu Glu
 180 185 190
 Pro Glu Glu Asp Asp Ser Pro Arg Asp Asp Asn Leu Glu Glu Arg
 195 200 205
 Asn Asp Ile Leu Ala Val Ala Asp Trp Gly Gln Lys Val Ser Phe Tyr

210	215	220																
Gln	Leu	Ser	Gly	Lys	Gln	Ile	Gly	Lys	Asp	Arg	Ala	Leu	Asn	Phe	Asp			
225			230			235										240		
Pro	Cys	Cys	Ile	Ser	Tyr	Phe	Thr	Lys	Gly	Glu	Tyr	Ile	Leu	Leu	Gly			
															245	250	255	
Gly	Ser	Asp	Lys	Gln	Val	Ser	Leu	Phe	Thr	Lys	Asp	Gly	Val	Arg	Leu			
															260	265	270	
Gly	Thr	Val	Gly	Glu	Gln	Asn	Ser	Trp	Val	Trp	Thr	Cys	Gln	Ala	Lys			
															275	280	285	
Pro	Asp	Ser	Asn	Tyr	Val	Val	Val	Gly	Cys	Gln	Asp	Gly	Thr	Ile	Ser			
															290	295	300	
Phe	Tyr	Gln	Leu	Ile	Phe	Ser	Thr	Val	His	Gly	Leu	Tyr	Lys	Asp	Arg			
															305	310	315	320
Tyr	Ala	Tyr	Arg	Asp	Ser	Met	Thr	Asp	Val	Ile	Val	Gln	His	Leu	Ile			
															325	330	335	
Thr	Glu	Gln	Lys	Val	Arg	Ile	Lys	Cys	Lys	Glu	Leu	Val	Lys	Lys	Ile			
															340	345	350	
Ala	Ile	Tyr	Arg	Asn	Arg	Leu	Ala	Ile	Gln	Leu	Pro	Glu	Lys	Ile	Leu			
															355	360	365	
Ile	Tyr	Glu	Leu	Tyr	Ser	Glu	Asp	Leu	Ser	Asp	Met	His	Tyr	Arg	Val			
															370	375	380	
Lys	Glu	Lys	Ile	Ile	Lys	Lys	Phe	Glu	Cys	Asn	Leu	Leu	Val	Val	Cys			
															385	390	395	400
Ala	Asn	His	Ile	Ile	Leu	Cys	Gln	Glu	Lys	Arg	Leu	Gln	Cys	Leu	Ser			
															405	410	415	
Phe	Ser	Gly	Val	Lys	Glu	Arg	Glu	Trp	Gln	Met	Glu	Ser	Leu	Ile	Arg			
															420	425	430	
Tyr	Ile	Lys	Val	Ile	Gly	Gly	Pro	Pro	Gly	Arg	Glu	Gly	Leu	Leu	Val			
															435	440	445	
Gly	Leu	Lys	Asn	Gly	Gln	Ile	Leu	Lys	Ile	Phe	Val	Asp	Asn	Leu	Phe			
															450	455	460	
Ala	Ile	Val	Leu	Leu	Lys	Gln	Ala	Thr	Ala	Val	Arg	Cys	Leu	Asp	Met			
															465	470	475	480
Ser	Ala	Ser	Arg	Lys	Lys	Leu	Ala	Val	Val	Asp	Glu	Asn	Asp	Thr	Cys			
															485	490	495	
Leu	Val	Tyr	Asp	Ile	Asp	Thr	Lys	Glu	Leu	Leu	Phe	Gln	Glu	Pro	Asn			
															500	505	510	
Ala	Asn	Ser	Val	Ala	Trp	Asn	Thr	Gln	Cys	Glu	Asp	Met	Leu	Cys	Phe			
															515	520	525	
Ser	Gly	Gly	Gly	Tyr	Leu	Asn	Ile	Lys	Ala	Ser	Thr	Phe	Pro	Val	His			
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Arg	Gln	Lys	Leu	Gln	Gly	Phe	Val	Val	Gly	Tyr	Asn	Gly	Ser	Lys	Ile			
															545	550	555	560
Phe	Cys	Leu	His	Val	Phe	Ser	Ile	Ser	Ala	Val	Glu	Val	Pro	Gln	Ser			
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Ala	Pro	Met	Tyr	Gln	Tyr	Leu	Asp	Arg	Lys	Leu	Phe	Lys	Glu	Ala	Tyr			
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Gln	Ile	Ala	Cys	Leu	Gly	Val	Thr	Asp	Thr	Asp	Trp	Arg	Glu	Leu	Ala			
															595	600	605	
Met	Glu	Ala	Leu	Glu	Gly	Leu	Asp	Phe	Glu	Thr	Ala	Lys	Lys	Ala	Phe			
															610	615	620	
Ile	Arg	Val	Gln	Asp	Leu	Arg	Tyr	Leu	Glu	Leu	Ile	Ser	Ser	Ile	Glu			
															625	630	635	640
Glu	Arg	Lys	Lys	Arg	Gly	Glu	Thr	Asn	Asp	Leu	Phe	Leu	Ala	Asp				

645	650	655
Val Phe Ser Tyr Gln Gly Lys Phe His Glu Ala Ala Lys Leu Tyr Lys		
660	665	670
Arg Ser Gly His Glu Asn Leu Ala Leu Glu Met Tyr Thr Asp Leu Cys		
675	680	685
Met Phe Glu Tyr Ala Lys Asp Phe Leu Gly Ser Gly Asp Pro Lys Glu		
690	695	700
Thr Lys Met Leu Ile Thr Lys Gln Ala Asp Trp Ala Arg Asn Ile Lys		
705	710	715
Glu Pro Lys Ala Ala Val Glu Met Tyr Ile Ser Ala Gly Glu His Val		
725	730	735
Lys Ala Ile Glu Ile Cys Gly Asp His Gly Trp Val Asp Met Leu Ile		
740	745	750
Asp Ile Ala Arg Lys Leu Asp Lys Ala Glu Arg Glu Pro Leu Leu Leu		
755	760	765
Cys Ala Thr Tyr Leu Lys Lys Leu Asp Ser Pro Gly Tyr Ala Ala Glu		
770	775	780
Thr Tyr Leu Lys Met Gly Asp Leu Lys Ser Leu Val Gln Leu His Val		
785	790	795
Glu Thr Gln Arg Trp Asp Glu Ala Phe Ala Leu Gly Glu Lys His Pro		
805	810	815
Glu Phe Lys Asp Asp Ile Tyr Met Pro Tyr Ala Gln Trp Leu Ala Glu		
820	825	830
Asn Asp Arg Phe Glu Glu Ala Gln Lys Ala Phe His Lys Ala Gly Arg		
835	840	845
Gln Arg Glu Ala Val Gln Val Leu Glu Gln Leu Thr Asn Asn Ala Val		
850	855	860
Ala Glu Ser Arg Phe Asn Asp Ala Ala Tyr Tyr Trp Met Leu Ser		
865	870	875
Met Gln Cys Leu Asp Ile Ala Gln Ala Asp Pro Ala Gln Lys Asp Thr		
885	890	895
Met Leu Gly Lys Phe Tyr His Phe Gln Arg Leu Ala Glu Leu Tyr His		
900	905	910
Gly Tyr His Ala Ile His Arg His Thr Glu Asp Pro Phe Ser Val His		
915	920	925
Arg Pro Glu Thr Leu Phe Asn Ile Ser Arg Phe Leu Leu His Ser Leu		
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Pro Lys Asp Thr Pro Ser Gly Ile Ser Lys Val Lys Ile Leu Phe Thr		
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Ala Tyr Asp Lys Leu Arg Gly Leu Tyr Ile Pro Ala Arg Phe Gln Lys		
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Ser Ile Glu Leu Gly Thr Leu Thr Ile Arg Ala Lys Pro Phe His Asp		
995	1000	1005
Ser Glu Glu Leu Val Pro Leu Cys Tyr Arg Cys Ser Thr Asn Asn Pro		
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Leu Leu Asn Asn Leu Gly Asn Val Cys Ile Asn Cys Arg Gln Pro Phe		
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Leu Glu Glu Gly Ile Thr Asp Glu Glu Ala Ile Ser Leu Ile Asp Leu		
1060	1065	1070
Glu Val Leu Arg Pro Lys Arg Asp Asp Arg Gln Leu Glu Ile Ala Asn		

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Asp Glu Asp Pro Phe Thr Ala Lys Leu Ser Phe Glu Gln Gly Ser		
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Glu Phe Val Pro Val Val Val Ser Arg	Leu Val Leu Arg Ser Met Ser	
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Arg Arg Asp Val Leu Ile Lys Arg Trp Pro Pro Pro Leu Arg Trp Gln		
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Tyr Phe Arg Ser Leu Leu Pro Asp Ala Ser Ile Thr Met Cys Pro Ser		
1155	1160	1165
Cys Phe Gln Val Gly Gly His Pro Gly Ser Ser His Val Leu Leu Leu		
1170	1175	1180
Ala Thr Phe Pro Leu Pro Lys Cys Pro Ser Gly Arg Arg Gly Pro Trp		
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<211> 1989

<212> DNA

<213> Homo sapiens

<400> 5923

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65	70	75
Ser Leu Tyr Ala Pro Asp Tyr Ser Ser Arg Leu Asp Ile Val Arg Ala		
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Gly Thr Gly Gln Val Ser Thr Cys Arg Leu Arg Lys Asp Gln Gln Ala		
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<211> 4538

<212> DNA

<213> Homo sapiens

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<211> 526

<212> PRT

<213> Homo sapiens

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325	330	335
Lys Arg Arg Phe Asn Ile Lys Met Cys Phe Asp Met Leu Asn Ser Leu		
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Ile Ser Asn Asn Ser Lys Leu Thr Ser His Ala Ile Thr Leu Gln Lys		
355	360	365
Thr Val Glu Tyr Ile Thr Lys Leu Gln Gln Glu Arg Gly Gln Met Gln		
370	375	380
Glu Glu Ala Arg Arg Leu Arg Glu Glu Ile Glu Glu Leu Asn Ala Thr		
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Thr Arg Thr Leu Gln Asn Trp Lys Phe Trp Ile Phe Ser Ile Ile Ile		
435	440	445
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450	455	460
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485	490	495
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<213> Homo sapiens

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Met Val Glu Ser Leu Leu Ser Leu Ala Asn Gln	Pro Val Ile His Ser		
65	70	75	80
Ala Cys Ser Asp Gln Val Asn Phe Lys Lys Asp	Thr Thr Ser Lys Ala		
85	90	95	
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<210> 5929

<211> 606

<212> DNA

<213> Homo sapiens

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<212> PRT
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Ala Met Glu Tyr Val Asn Asp Phe Asp Leu Leu Lys Phe Asp Val Lys
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Lys Glu Pro Leu Gly Arg Ala Glu Arg Pro Gly Arg Pro Cys Thr Arg
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Leu Gln Pro Ala Gly Ser Val Ser Ser Thr Pro Leu Ser Thr Pro Cys
50 55 60
Ser Ser Val Pro Ser Ser Pro Ser Phe Ser Pro Thr Glu Gln Lys Thr
65 70 75 80
His Leu Glu Asp Leu Tyr Trp Met Ala Ser Asn Tyr Gln Gln Met Asn
85 90 95
Pro Glu Ala Leu Asn Leu Thr Pro Glu Asp Ala Val Glu Ala Leu Ile
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Gly Ser His Pro Val Pro Gln Pro Leu Gln Ser Phe Asp Ser Phe Arg
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<210> 5931
<211> 478
<212> DNA
<213> Homo sapiens

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<210> 5932
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<212> PRT
<213> Homo sapiens

<400> 5932

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 35 40 45
 Ala Gly Ser Ser Gly Pro Gly Asn Ser Gln Asn Ser Phe Leu Val Gln
 50 55 60
 Glu Val Met Glu Glu Glu Trp Asn Ala Leu Gln Ser Val Glu Asn Cys
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<210> 5933

<211> 1953

<212>-DNA

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 35 40 45
 Ser Leu Phe Glu Glu Ala His Lys Met Val Arg Glu Ala Asn Met Lys
 50 55 60
 Gln Ala Ala Ser Glu Lys Gln Leu Lys Glu Ala Arg Gly Lys Ile Asp
 65 70 75 80
 Met Leu Gln Ala Glu Val Thr Ala Leu Lys Thr Leu Val Ile Thr Ser
 85 90 95
 Thr Pro Ala Ser Pro Asn Arg Glu Leu His Pro Gln Leu Leu Ser Pro

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Gln Ala Trp Arg Glu Ser Pro Thr Leu Asp Lys Thr Cys Pro Phe Leu		
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Gln Glu Leu Ser Val Leu Val Arg Ala Ala Val Glu Asp Asn Thr Leu		
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Glu Val Asp Cys Ser Ser Thr Asn Thr Cys Ala Leu Ser Gly Leu Thr		
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Tyr Ile Ser Pro Ser Ser Arg Ala Arg Ile Thr Ala Val Cys Asn Phe		
260	265	270
Phe Thr Tyr Ile Arg Tyr Ile Gln Gln Gly Leu Val Arg Gln Asp Ala		
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<210> 5935

<211> 2727

<212> DNA

<213> Homo sapiens

<400> 5935

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 <212> PRT
 <213> Homo sapiens

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 Tyr His Pro Thr Pro Ser Gln Thr Arg Leu Ala Thr Gln Leu Thr Glu
 50 55 60
 Glu Glu Gln Ile Arg Ile Ala Gln Arg Ile Gly Leu Ile Gln His Leu
 65 70 75 80
 Pro Lys Gly Val Tyr Asp Pro Gly Arg Asp Gly Ser Glu Lys Lys Ile
 85 90 95
 Arg Glu Cys Val Ile Cys Met Met Asp Phe Val Tyr Gly Asp Pro Ile
 100 105 110
 Arg Phe Leu Pro Cys Met His Ile Tyr His Leu Asp Cys Ile Asp Asp
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<210> 5937
 <211> 1536
 <212> DNA
 <213> Homo sapiens

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<213> Homo sapiens

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 Cys Thr Thr Leu Ser Gly Asp Thr Ser Asp Thr Gly Glu Gly Thr Val
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 Val Val Ser Tyr Gly Val Ser Leu Glu Asn Ala Val Leu Asp Gln Leu
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 Trp Ala Leu Leu Gly Gly Cys Thr Glu Thr His Leu Ala Ala Tyr
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 260 265 270
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 305 310 315 320
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35 40 45
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<210> 5941
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<212> DNA
<213> Homo sapiens

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<210> 5942
 <211> 89
 <212> PRT
 <213> Homo sapiens

<400> 5942
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 Pro Gly Ser Leu Gln Pro Pro Pro Gly Phe Lys Gln Phe Ser Cys

35	40	45
Leu Ser Leu Pro Ser Ser Trp Asp Tyr Arg Cys	Leu Ser Ser Arg	Leu
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Ala Thr Phe Cys Ile Phe Ser Arg Asp Arg Val	Ser Pro Cys	Trp Pro
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Gly Trp Ser Gln Thr Pro Asp Leu Lys		80
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<210> 5943

<211> 781

<212> DNA

<213> Homo sapiens

<400> 5943

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<210> 5944

<211> 174

<212> PRT

<213> Homo sapiens

<400> 5944

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Gly Val Ser Ser Ile Thr Lys Leu Gln Arg Gln Pro Phe	Gly Val Glu		

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Thr Lys Pro Gly Ile Leu Cys Cys Phe Gln Asn Glu Phe Glu Asn Pro		
50	55	60
Cys Phe Pro Lys Ser His Phe Ser Val Thr Gln Ala Gly Glu Gln Trp		
65	70	75
Arg Asp Leu Ser Ser Pro Gln Pro Pro Pro Arg Phe Lys Gln Phe		80
85	90	95
Ser Cys Leu Ser Leu Pro Ser Ser Trp Asp His Arg His Pro Pro Pro		
100	105	110
Arg Pro Ala Asn Phe Cys Ile Phe Ser Arg Asp Glu Val Ser Pro Arg		
115	120	125
Ser Arg Ser Pro Asp Leu Met Xaa Ser Ala His Leu Gly Leu Pro Lys		
130	135	140
Cys Trp Asp Tyr Arg Arg Glu Pro Leu Arg Pro Ala Gln Ile Ser Leu		
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<210> 5945

<211> 869

<212> DNA

<213> Homo sapiens

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720	
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<210> 5946
<211> 121
<212> PRT
<213> Homo sapiens

<400> 5946
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Arg Asp Phe Leu Arg Tyr Leu Gln Ser Leu Leu Ala Glu Val Glu Arg
35 40 45
Arg Ile Arg Arg Gly His Ala Arg Leu Ala Leu Ser Gln Asn Gln Gln
50 55 60
Ser Ser Gly Ala Ala Gly Pro Thr Gly Lys Asn Gly Glu Lys Ile Gln
65 70 75 80
Val Leu Thr Asp Lys Ile Asp Val Leu Leu Gln Ile Glu Glu Leu
85 90 95
Gly Ser Glu Gly Lys Val Glu Glu Ala Gln Gly Met Met Lys Leu Val
100 105 110
Glu Gln Leu Lys Glu Glu Arg Glu Leu
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<210> 5947
<211> 2283
<212> DNA
<213> Homo sapiens

<400> 5947
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<210> 5948
<211> 76
<212> PRT
<213> Homo sapiens

<400> 5948
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Pro Arg Ala Ser Lys His His Tyr Ser Arg Ser Arg Ser Arg Ser Arg
35 40 45
Glu Arg Lys Arg Lys Ser Asp Asn Glu Gly Arg Lys His Arg Ser Arg
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<210> 5949
<211> 4706
<212> DNA
<213> Homo sapiens

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<210> 5950
 <211> 397
 <212> PRT
 <213> Homo sapiens

<400> 5950
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 His Ala Met Lys Gly Val Ile Arg Val Lys Phe Val Asn Asp Leu Gly
 35 40 45
 Val Asp Glu Ala Gly Ile Asp Gln Asp Gly Val Phe Lys Glu Phe Leu
 50 55 60
 Glu Glu Ile Ile Lys Arg Val Phe Asp Pro Ala Leu Asn Leu Phe Lys
 65 70 75 80
 Thr Thr Ser Gly Asp Glu Arg Leu Tyr Pro Ser Pro Thr Ser Tyr Ile
 85 90 95
 His Glu Asn Tyr Leu Gln Leu Phe Glu Phe Val Gly Lys Met Leu Gly
 100 105 110
 Lys Ala Val Tyr Glu Gly Ile Val Val Asp Val Pro Phe Ala Ser Phe
 115 120 125
 Phe Leu Ser Gln Leu Leu Gly His His Ser Val Phe Tyr Ser Ser
 130 135 140
 Val Asp Glu Leu Pro Ser Leu Asp Ser Glu Phe Tyr Lys Asn Leu Thr
 145 150 155 160
 Ser Ile Lys Arg Tyr Asp Gly Asp Ile Thr Asp Leu Gly Leu Thr Leu
 165 170 175
 Ser Tyr Asp Glu Asp Val Met Gly Gln Leu Val Cys His Glu Leu Ile
 180 185 190
 Pro Gly Gly Lys Thr Ile Pro Val Thr Asn Glu Asn Lys Ile Ser Tyr
 195 200 205
 Ile His Leu Met Ala His Phe Arg Met His Thr Gln Ile Lys Asn Gln

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225	230	235
Ile Arg Met Phe Ser Thr Pro Glu Leu Gln Arg Leu Ile Ser Gly Asp		240
245	250	255
Asn Ala Glu Ile Asp Leu Glu Asp Leu Lys Lys His Thr Val Tyr Tyr		
260	265	270
Gly Gly Phe His Gly Ser His Arg Val Ile Trp Leu Trp Asp Ile		
275	280	285
Leu Ala Ser Asp Phe Thr Pro Asp Glu Arg Ala Met Phe Leu Lys Phe		
290	295	300
Val Thr Ser Cys Ser Arg Pro Pro Leu Leu Gly Phe Ala Tyr Leu Lys		
305	310	315
Pro Pro Phe Ser Ile Arg Cys Val Glu Val Ser Asp Asp Gln Asp Thr		320
325	330	335
Gly Asp Thr Leu Gly Ser Val Leu Arg Gly Phe Phe Thr Ile Arg Lys		
340	345	350
Arg Glu Pro Gly Gly Arg Leu Pro Thr Ser Ser Thr Cys Phe Asn Leu		
355	360	365
Leu Lys Leu Pro Asn Tyr Ser Lys Lys Ser Val Leu Arg Glu Lys Leu		
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<210> 5951

<211> 1724

<212> DNA

<213> Homo sapiens

<400> 5951

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 420
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 660
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 720

gaggaccctc accatggcaa tgggcagttc accgagaagc gggtgtatct caacagcaaa
 780
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 aactattatc cttacacaat tacagaatac acatgttcct ttctgccaa attctccatt
 900
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 1260
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 1320
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 1380
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 1440
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 1500
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 1560
 cggcccaaat ctgagtaact ttatataaat atctcatggg gttttatatt ttcatttgg
 1620
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<210> 5952

<211> 378

<212> PRT

<213> Homo sapiens

<400> 5952
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 20 25 30
 Ala Pro Arg Phe Pro Pro Gly Gly Phe Ala Ala Gly Arg Thr Met Leu
 35 40 45
 Leu Lys Glu Tyr Arg Ile Cys Met Pro Leu Thr Val Asp Glu Tyr Lys
 50 55 60
 Ile Gly Gln Leu Tyr Met Ile Ser Lys His Ser His Glu Gln Ser Asp
 65 70 75 80
 Arg Gly Glu Gly Val Glu Val Val Gln Asn Glu Pro Phe Glu Asp Pro
 85 90 95
 His His Gly Asn Gly Gln Phe Thr Glu Lys Arg Val Tyr Leu Asn Ser

100	105	110
Lys Leu Pro Ser Trp Ala Arg Ala Val Val Pro Lys Ile Phe Tyr Val		
115	120	125
Thr Glu Lys Ala Trp Asn Tyr Tyr Pro Tyr Thr Ile Thr Glu Tyr Thr		
130	135	140
Cys Ser Phe Leu Pro Lys Phe Ser Ile His Ile Glu Thr Lys Tyr Glu		
145	150	155
Asp Asn Lys Gly Ser Asn Asp Thr Ile Phe Asp Asn Glu Ala Lys Asp		
165	170	175
Val Glu Arg Glu Val Cys Phe Ile Asp Ile Ala Cys Asp Glu Ile Pro		
180	185	190
Glu Arg Tyr Tyr Lys Glu Ser Glu Asp Pro Lys His Phe Lys Ser Glu		
195	200	205
Lys Thr Gly Arg Gly Gln Leu Arg Glu Gly Trp Arg Asp Ser His Gln		
210	215	220
Pro Ile Met Cys Ser Tyr Lys Leu Val Thr Val Lys Phe Glu Val Trp		
225	230	235
Gly Leu Gln Thr Arg Val Glu Gln Phe Val His Lys Val Val Arg Asp		
245	250	255
Ile Leu Leu Ile Gly His Arg Gln Ala Phe Ala Trp Val Asp Glu Trp		
260	265	270
Tyr Asp Met Thr Met Asp Glu Val Arg Glu Phe Glu Arg Ala Thr Gln		
275	280	285
Glu Ala Thr Asn Lys Lys Ile Gly Ile Phe Pro Pro Ala Ile Ser Ile		
290	295	300
Ser Ser Ile Pro Leu Leu Pro Ser Ser Val Arg Ser Ala Pro Ser Ser		
305	310	315
Ala Pro Ser Thr Pro Leu Ser Thr Asp Ala Pro Glu Phe Leu Ser Val		
325	330	335
Pro Lys Asp Arg Pro Arg Lys Ser Ala Pro Glu Thr Leu Thr Leu		
340	345	350
Pro Asp Pro Glu Lys Lys Ala Thr Leu Asn Leu Pro Gly Met His Ser		
355	360	365
Ser Asp Lys Pro Cys Arg Pro Lys Ser Glu		
370	375	

<210> 5953
<211> 777
<212> DNA
<213> Homo sapiens

<400> 5953
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120
cgggacaggc tcctaaacag gtaccgccag ctngaaagca gtggggcagg gaatttctcag
180
aacagctttc tagttcaaga ggtgatggaa gaagagtggaa atgctttgca gtcagtggag
240
aattgtccag aagacttggc tcagctggag gagctgatag acatggctgt gctggaggaa
300
attcaacagg agctgatcaa ccaagagcag tccatcatca gcgagtatga gaagagcttg
360

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cagtttgcgtgaaaagtgtctcagcatcatgctggcttgactgggaggcaaacccactcatc  
420  
tgtcctgtatgtacaaagcctgtgatacttgggctgtgatcctctagagccagcttgac  
480  
tcacatcattctatgggttgaagacaactcattccctctgaggagcctgtacatacaa  
540  
gccttttatttataacttattttgtattgaacttttaaa caatactgaa gaaaaaaaa  
600  
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660  
agacaaactgccttggagga gataaaccaa ttttatgtctatcatgttat acaaaaatct  
720  
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777
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<210> 5954  
<211> 152  
<212> PRT  
<213> Homo sapiens
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<400> 5954
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 Tyr Lys Leu Val Gly Ser Pro Pro Trp Lys Glu Ala Phe Arg Gln Arg
 20 25 30
 Cys Leu Glu Arg Met Arg Asn Ser Arg Asp Arg Leu Leu Asn Arg Tyr
 35 40 45
 Arg Gln Leu Xaa Ser Ser Gly Pro Gly Asn Ser Gln Asn Ser Phe Leu
 50 55 60
 Val Gln Glu Val Met Glu Glu Glu Trp Asn Ala Leu Gln Ser Val Glu
 65 70 75 80
 Asn Cys Pro Glu Asp Leu Ala Gln Leu Glu Glu Leu Ile Asp Met Ala
 85 90 95
 Val Leu Glu Glu Ile Gln Gln Glu Leu Ile Asn Gln Glu Gln Ser Ile
 100 105 110
 Ile Ser Glu Tyr Glu Lys Ser Leu Gln Phe Asp Glu Lys Cys Leu Ser
 115 120 125
 Ile Met Leu Ala Glu Trp Glu Ala Asn Pro Leu Ile Cys Pro Val Cys
 130 135 140
 Thr Lys Pro Val Ile Leu Gly Leu
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<210> 5955  
<211> 1459  
<212> DNA  
<213> Homo sapiens
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<400> 5955  
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120  
gctcagccctg tgatctgtat ccactcagca tgcacttggg cagatgattt gtctgtgtgc  
180
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tacccttccc cccatattac catacatatg cacggcggga ccagcagcga cgtagcagc
 240
 agcatggccg cgatctatgg gggtagatgg gggggaggca cacgatccga ggtccttta
 300
 gtctcagagg atggaaatg cctggcagaa gcagatggac tgagcacaaa ccactggctg
 360
 atcgggacag acaagtgtgt ggagaggatc aatgagatgg tgaacagggc caaacggaaa
 420
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 480
 caggaggacg cggggaggat cctgatcgag gagctgaggg accgatttcc ctacctgagt
 540
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 600
 ggagttgtgc tcatatctgg aacaggctcc aactgcaggg tcatcaaccc ttagggctcc
 660
 gagagtggtt gccccggctg gggccatatg atgggtgatg agggttcage cctctctgt
 720
 ccctcagcct actggatcgc acaccaagca gtgaaaatag ttttgactc cattgacaac
 780
 cttagggcgg ctccatcgatgatacgttgcgttgcgttgcgttgcgttgcgttgcgttgcgtt
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 1020
 gaccgggtct tggccaggg caagattgga ctccccatcc tggcggtggg ctctgtgtgg
 1080
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 1200
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 1260
 aatgecatttgc ctttctatttc ctacacctt tccttaggggg ctggtcccggttcc
 1320
 tccaaatgtca gtggacactg ggtctgaaag gaaggagtct tttgtttctt ttctcc
 1380
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 1440
 aaaaaaaaaa aagtgcacg
 1459

<210> 5956
 <211> 431
 <212> PRT
 <213> Homo sapiens

<400> 5956
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20	25	30
Arg Phe Lys Ala Leu Pro Pro Gly Ala Gln Pro Val Ile Cys Ile His		
35	40	45
Ser Ala Cys Thr Trp Ala Asp Asp Leu Ser Val Cys Tyr Pro Ser Pro		
50	55	60
His Ile Thr Ile His Met His Gly Gly Thr Ser Ser Asp Gly Ser Ser		
65	70	75
Ser Met Ala Ala Ile Tyr Gly Val Glu Gly Gly Thr Arg Ser		
85	90	95
Glu Val Leu Leu Val Ser Glu Asp Gly Lys Ile Leu Ala Glu Ala Asp		
100	105	110
Gly Leu Ser Thr Asn His Trp Leu Ile Gly Thr Asp Lys Cys Val Glu		
115	120	125
Arg Ile Asn Glu Met Val Asn Arg Ala Lys Arg Lys Ala Gly Val Asp		
130	135	140
Pro Leu Val Pro Leu Arg Ser Leu Gly Leu Ser Leu Ser Gly Gly Asp		
145	150	155
Gln Glu Asp Ala Gly Arg Ile Leu Ile Glu Glu Leu Arg Asp Arg Phe		
165	170	175
Pro Tyr Leu Ser Glu Ser Tyr Leu Ile Thr Thr Asp Ala Ala Gly Ser		
180	185	190
Ile Ala Thr Ala Thr Pro Asp Gly Gly Val Val Leu Ile Ser Gly Thr		
195	200	205
Gly Ser Asn Cys Arg Leu Ile Asn Pro Asp Gly Ser Glu Ser Gly Cys		
210	215	220
Gly Gly Trp Gly His Met Met Gly Asp Glu Gly Ser Ala Leu Ser Ala		
225	230	235
Pro Ser Ala Tyr Trp Ile Ala His Gln Ala Val Lys Ile Val Phe Asp		
245	250	255
Ser Ile Asp Asn Leu Glu Ala Ala Pro His Asp Ile Gly Tyr Val Lys		
260	265	270
Gln Ala Met Phe His Tyr Phe Gln Val Pro Asp Arg Leu Gly Ile Leu		
275	280	285
Thr His Leu Tyr Arg Asp Phe Asp Lys Cys Arg Phe Ala Gly Phe Cys		
290	295	300
Arg Lys Ile Ala Glu Ala Gln Gln Gly Asp Pro Leu Ser Arg Tyr		
305	310	315
Ile Phe Arg Lys Ala Gly Glu Met Leu Gly Arg His Ile Val Ala Val		
325	330	335
Leu Pro Glu Ile Asp Pro Val Leu Phe Gln Gly Lys Ile Gly Leu Pro		
340	345	350
Ile Leu Cys Val Gly Ser Val Trp Lys Ser Trp Glu Leu Leu Lys Glu		
355	360	365
Gly Phe Leu Leu Ala Leu Thr Gln Gly Arg Glu Ile Gln Ala Gln Asn		
370	375	380
Phe Phe Ser Ser Phe Thr Leu Met Lys Leu Arg His Ser Ser Ala Leu		
385	390	395
Gly Gly Ala Ser Leu Gly Ala Arg His Ile Gly His Leu Leu Pro Met		
405	410	415
Asp Tyr Ser Ala Asn Ala Ile Ala Phe Tyr Ser Tyr Thr Phe Ser		
420	425	430

<210> 5957
<211> 855

<212> DNA

<213> Homo sapiens

<400> 5957

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 ctaaacaggt accgccaggc tggaagcagt gggccaggga attctcagaa cagcttctca
 180
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 240
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 300
 360
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 420
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 480
 ttattttata acttattttt tattgaaact tttaaacaat actgaagaaa aaaaaacttt
 540
 tccgacatct gttttggc ttttgaca caggttgaag ggggaggaat agaaaaagac
 600
 aaactgcctt ggaggagata aaccaatttt atgtctatca tgttatacaa aaatctagaa
 660
 ataatagatt tgtacagaaa aaaatgataa taaatgagag cacaaaacat ataatttaaa
 720
 tctggatattt tttcccccat gatatttaga tgataatcat ttcaaagcac atgtctagct
 780
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 855
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<210> 5958

<211> 106

<212> PRT

<213> Homo sapiens

<400> 5958

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							20						30		
Met	Arg	Asn	Ser	Arg	Asp	Arg	Leu	Leu	Asn	Arg	Tyr	Arg	Gln	Ala	Gly
							35						45		
Ser	Ser	Gly	Pro	Gly	Asn	Ser	Gln	Asn	Ser	Phe	Leu	Val	Gln	Glu	Val
							50						60		
Met	Glu	Glu	Glu	Trp	Asn	Ala	Leu	Gln	Ser	Val	Glu	Asn	Cys	Pro	Glu
65							70			75			80		
Asp	Leu	Ala	Gln	Leu	Glu	Glu	Leu	Ile	Asp	Met	Ala	Val	Leu	Glu	Glu
							85			90			95		
Ile	Gln	Gln	Glu	Leu	Ile	Asn	Gln	Gly	Leu						

100

105

<210> 5959
<211> 830
<212> DNA
<213> Homo sapiens

<400> 5959
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120
ctatatgtatc acaatctttt ctgtcatattt gtggatgaag tactcttggtt tgaaaggag
180
ctcacatgtt ttcataatggctt tcctggcaat tttgctaatt gtatgcataat tctatcagag
240
gaaacctgtt ttcaaaatgtt ggtgacgggg gagagaaaaat ttgtcttca aaaaatggac
300
tcaatgtttt cctcagaagc tgcctgggtt tcgcaatata aggatatac acgttgttgc
360
gaaatgaaag ttccagatgtt tgcagaaaact tttatgactc tactcttgggt tataactgac
420
agtataaaaa atcttccccac agcttcccga aagcttcagt tcctggagtt acagaaggac
480
tttagtagatg atttttagat acgattaaca caagtgtatga aagaagagac tagagcttcc
540
cttggcttgc gatactgtgc aatttttaat gctgtgaact acatctcaac agtactagca
600
gattgggctg acaatgtttt ctttctacaa ctcaacagg ctgcactggg ggtgtttgca
660
gagaataata ctctgatgaa attgcagctt ggacagctt cctctatggg gagctctgtc
720
tttgatgaca tgatgttacctt ttagaaacgt ttaaagcatg atatgttgc acgtcaagta
780
gaccacgttt ttagagaagt taaagatgtt gcaaaattgt ataaaaaaaga
830

<210> 5960
<211> 251
<212> PRT
<213> Homo sapiens

<400> 5960
Met Met Leu Val Leu Glu Lys Leu Ala Thr Asp Ile Pro Cys Leu Leu
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Tyr Asp Asp Asn Leu Phe Cys His Leu Val Asp Glu Val Leu Leu Phe
20 25 30
Glu Arg Glu Leu His Ser Val His Gly Tyr Pro Gly Thr Phe Ala Asn
35 40 45
Cys Met His Ile Leu Ser Glu Glu Thr Cys Phe Gln Arg Trp Val Thr
50 55 60
Gly Glu Arg Lys Phe Ala Leu Gln Lys Met Asp Ser Met Leu Ser Ser
65 70 75 80
Glu Ala Ala Trp Val Ser Gln Tyr Lys Asp Ile Thr Asp Val Asp Glu

85	90	95
Met Lys Val Pro Asp Cys Ala Glu Thr Phe Met Thr Leu Leu Leu Val		
100	105	110
Ile Thr Asp Arg Tyr Lys Asn Leu Pro Thr Ala Ser Arg Lys Leu Gln		
115	120	125
Phe Leu Glu Leu Gln Lys Asp Leu Val Asp Asp Phe Arg Ile Arg Leu		
130	135	140
Thr Gln Val Met Lys Glu Glu Thr Arg Ala Ser Leu Gly Phe Arg Tyr		
145	150	155
Cys Ala Ile Leu Asn Ala Val Asn Tyr Ile Ser Thr Val Leu Ala Asp		
165	170	175
Trp Ala Asp Asn Val Phe Leu Gln Leu Gln Ala Ala Leu Glu		
180	185	190
Val Phe Ala Glu Asn Asn Thr Leu Ser Lys Leu Gln Leu Gly Gln Leu		
195	200	205
Ala Ser Met Glu Ser Ser Val Phe Asp Asp Met Ile Asn Leu Leu Glu		
210	215	220
Arg Leu Lys His Asp Met Leu Thr Arg Gln Val Asp His Val Phe Arg		
225	230	235
Glu Val Lys Asp Ala Ala Lys Leu Tyr Lys Lys		
245	250	

<210> 5961

<211> 585

<212> DNA

<213> Homo sapiens

<400> 5961

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120
aatttagagac tgagacaggg cagggtgccg aggtgtctgc atgcgtttca tgtggatgcc
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240
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<210> 5962

<211> 114

<212> PRT

<213> Homo sapiens

<400> 5962
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 Leu Ser His Ser His Gln Pro Gly Leu Ser Gly Glu Gly Ala Gln Glu
 35 40 45
 Gln Ala Arg Ile Asp Thr Gly Ile His Met Lys Arg Met Gln Thr Pro
 50 55 60
 Arg His Pro Ala Leu Ser Gln Ser Leu Ile Lys Phe Gly Ile Leu Phe
 65 70 75 80
 Asp Pro Ser Ile Phe Leu Glu Thr Gly Ser Arg Phe Ile Ala Gln
 85 90 95
 Ala Glu Cys Ser Gly Tyr Ser Gln Ala Pro Leu Glu Arg Thr Ala Ala
 100 105 110
 Pro Ser

<210> 5963
<211> 1288
<212> DNA
<213> Homo sapiens

<400> 5963
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 180
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 240
 aaagcacaca tgaactcagt gtcatgggg atgaagaacc agctcgccgt cttgcgagtg
 300
 360
 gctggttccc tgcagaagag cacagaagtg atgaaggcca tgcaaagtct tgtgaagatt
 420
 ccagagattc aggccaccat gagggagttg tccaaagaaa tcatgaaggc tgggatcata
 480
 gaggagatgt tagaggacac ttttggaaagc atggacgatc aggaagaaat ggaggaagaa
 540
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 660
 gaggatgagg aggaggagga agaggtcttg gaggccatgc agtccccgtt ggccacactc
 720
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 780
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 1288

<210> 5964

<211> 222

<212> PRT

<213> Homo sapiens

<400> 5964
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 20 25 30
 Gln Ile Arg Asp Ile Gln Arg Glu Glu Glu Lys Val Lys Arg Ser Val
 35 40 45
 Lys Asp Ala Ala Lys Lys Gly Gln Lys Asp Val Cys Ile Val Leu Ala
 50 55 60
 Lys Glu Met Ile Arg Ser Arg Lys Ala Val Ser Lys Leu Tyr Ala Ser
 65 70 75 80
 Lys Ala His Met Asn Ser Val Leu Met Gly Met Lys Asn Gln Leu Ala
 85 90 95
 Val Leu Arg Val Ala Gly Ser Leu Gln Lys Ser Thr Glu Val Met Lys
 100 105 110
 Ala Met Gln Ser Leu Val Lys Ile Pro Glu Ile Gln Ala Thr Met Arg
 115 120 125
 Glu Leu Ser Lys Glu Met Met Lys Ala Gly Ile Ile Glu Glu Met Leu
 130 135 140
 Glu Asp Thr Phe Glu Ser Met Asp Asp Gln Glu Glu Met Glu Glu
 145 150 155 160
 Ala Glu Met Glu Ile Asp Arg Ile Leu Phe Glu Ile Thr Ala Gly Ala
 165 170 175
 Leu Gly Lys Ala Pro Ser Lys Val Thr Asp Ala Leu Pro Glu Pro Glu
 180 185 190
 Pro Pro Gly Ala Met Ala Ala Ser Glu Asp Glu Glu Glu Glu Glu
 195 200 205
 Ala Leu Glu Ala Met Gln Ser Arg Leu Ala Thr Leu Arg Ser
 210 215 220

<210> 5965

<211> 1011

<212> DNA

<213> Homo sapiens

<400> 5965
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 120
 AGATGCCTGG AGAGAATGAG AAACAGCCGG GACAGGCTCC TAAACAGGTA CGGCCAGGCT
 180
 GGAAGCAGTG GGCCAGGGAA TTCTCAGAAC AGCTTTCTAG TTCAAGAGGT GATGGAAGAA
 240
 GAGTGGAAATG CTTCAGNN TCAGTGGNAG AATTGTCCAG AAGACTTGGC TCAGTTGGAG
 300
 GAGCTGATAG ACATGGCTGT GCTGGAGGAA ATTCAACAGG AGCTGATCAA CCAAGAGCAG
 360
 TCCATCATCA GCGAGTATGA GAAGAGCTTG CAGTTGATG AAAAGTGTCT CAGCATCATG
 420
 CTGGCTGAGT GGGAGGCAAA CCCACTCATC TGTCCCTGTAT GTACAAAGTA CAACCTGAGA
 480
 ATCACAAGCG GTGTGGTGGT GTGTCAGTGT GGCCCTGTCCA TCCCATCTCA TTCTTCTGAG
 540
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 600
 TGTCCCCACA CACCTGAATT TTCAGTCACT GGAGGAACAG AAGAAAAGTC CAGTCTTC
 660
 ATGAGCTGTC TGGCCTGTGA TACTTGGCT GTGATCCTCT AGAGCCAGCT TGGACTCACA
 720
 TCATTCTATG GGGTTGAAGA CAACTCATTC CCTCTGAGGA GCCTTGTACA TACAAGCCTT
 780
 TTATTTATAA CTTATTTGT ATTGAAACTT TAAACAATA CTGAAGAAAA AAAAACTTTT
 840
 CCGACATCTG TTCTTGGTCT TTTGTGACGC AGGTTGAAGG GGGAGGAATA GAAAAAGACAA
 900
 AACTGCCTTG GAGGAGATAA ACCAATTAA TGTCTATCAT GTTATAACAAA AATCTAGAAA
 960
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 1011

<210> 5966
 <211> 233
 <212> PRT
 <213> Homo sapiens

<400> 5966
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 20 25 30
 Pro Trp Lys Glu Ala Phe Arg Gln Arg Cys Leu Glu Arg Met Arg Asn
 35 40 45
 Ser Arg Asp Arg Leu Leu Asn Arg Tyr Arg Gln Ala Gly Ser Ser Gly
 50 55 60
 Pro Gly Asn Ser Gln Asn Ser Phe Leu Val Gln Glu Val Met Glu Glu
 65 70 75 80
 Glu Trp Asn Ala Leu Gln Xaa Gln Trp Xaa Asn Cys Pro Glu Asp Leu

85	90	95
Ala Gln Leu Glu Glu Leu Ile Asp Met Ala Val Leu Glu Glu Ile Gln		
100	105	110
Gln Glu Leu Ile Asn Gln Glu Gln Ser Ile Ile Ser Glu Tyr Glu Lys		
115	120	125
Ser Leu Gln Phe Asp Glu Lys Cys Leu Ser Ile Met Leu Ala Glu Trp		
130	135	140
Glu Ala Asn Pro Leu Ile Cys Pro Val Cys Thr Lys Tyr Asn Leu Arg		
145	150	155
Ile Thr Ser Gly Val Val Val Cys Gln Cys Gly Leu Ser Ile Pro Ser		
165	170	175
His Ser Ser Glu Leu Thr Glu Gln Lys Leu Arg Ala Cys Leu Glu Gly		
180	185	190
Ser Ile Asn Glu His Ser Ala His Cys Pro His Thr Pro Glu Phe Ser		
195	200	205
Val Thr Gly Gly Thr Glu Glu Lys Ser Ser Leu Leu Met Ser Cys Leu		
210	215	220
Ala Cys Asp Thr Trp Ala Val Ile Leu		
225	230	

<210> 5967

<211> 1806

<212> DNA

<213> Homo sapiens

<400> 5967

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 120
 tgtgcttttg ttgctaggca gtcaacagca gggctactaa agcacttcta atttagacaa
 180
 atctttcct ctatttaga aatggatttc aatgggtttc agtttggttt cagaaaccta
 240
 ctgaaagtga gcatgtttt gaacacatta acaccgaagt tctacgtggc cctaacaggc
 300
 acttcctcac taatatcagg gcttattttg atatttgaat ggtggtattt tcgcaaatac
 360
 ggaacttcat tcattgaaca agtctcagta agccacttgc gcccccttct gggagggggtt
 420
 gacaacaact cttccaacaa ttctaattcc agtaacgggg actcagattc caataggcaa
 480
 aqtgtctcag aatgcaaagt atggcCAAAT ccactaaatt tatttagggg tgctgaatac
 540
 aatcggtata cttgggtgac aggacgagag cctttactt actatgacat gaatctct
 600
 gcccacacc accagacatt ctttacttgt gactcggacc atctgcgtcc cgccagatgc
 660
 ataatgcaga aagcctggag agagagaaac ccccaagcta ggatttctgc agctcatgaa
 720
 gccttggaga taaatgagac gagacaccaa tgtcttggtg tacatcaaaa gaaggctagc
 780
 aatgtgtgcc agaagactcg ggaggaccag ggaagcaaag cccttctgga actacaagca
 840

tatgctgatg ttcaggcagt cttagcaaag tatgatgata taagcttacc aaagtcagca
 900
 acaaatatgct acacagctgc tttgctcaaa gcaagagctg tctctgacaa attctctcct
 960
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 1020
 agagctgtgg aattcaatcc tcattgtgccaa aaatacctac tagaaatgaa aagcttaatc
 1080
 ctaccccccag aacataatctt gaagagagga gacagtgaag caatagcata tgcattttt
 1140
 catcttgacactggaagag agtggaaagggg gctttgaatc ttttgcattt tacgtggaa
 1200
 ggcacttttc ggatgatccc ttatccctt gaaaaggggc acctatTTTA tccttaccca
 1260
 atctgtacag aaacagcaga ccgagagctg ctccatctt tccatgaagt ctcagttac
 1320
 ccaaagaagg agtttccctt ctttattctc tttactgctg gattatgttc ctacacagcc
 1380
 atgctggccc tcctgacaca tcagttcccg gaacttatgg gggcttcgc aaaagctgtg
 1440
 agtgtttgcc tagagggagg ctttggggaa tggatggggaa aagccaaggg cataaaagca
 1500
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 1560
 accatTTTAAAT tttcatgatc gtcaatggaa tcaaaggattt aagggtcaaa tgagaaagt
 1620
 caggttggta ctgcatgcct tgcctcattt cacaacaaat tcttagcagt ttccaaaaaa
 1680
 tgcaggaggt ccaaaggat ggaatgattt agggaaatctt agcaaatgaa aatgtgtgg
 1740
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 1800
 ctttcc
 1806

<210> 5968
 <211> 434
 <212> PRT
 <213> Homo sapiens

<400> 5968
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 Ser Met Phe Leu Asn Thr Leu Thr Pro Lys Phe Tyr Val Ala Leu Thr
 20 25 30
 Gly Thr Ser Ser Leu Ile Ser Gly Leu Ile Leu Ile Phe Glu Trp Trp
 35 40 45
 Tyr Phe Arg Lys Tyr Gly Thr Ser Phe Ile Glu Gln Val Ser Val Ser
 50 55 60
 His Leu Arg Pro Leu Leu Gly Gly Val Asp Asn Asn Ser Ser Asn Asn
 65 70 75 80
 Ser Asn Ser Ser Asn Gly Asp Ser Asp Ser Asn Arg Gln Ser Val Ser
 85 90 95
 Glu Cys Lys Val Trp Arg Asn Pro Leu Asn Leu Phe Arg Gly Ala Glu

100	105	110
Tyr Asn Arg Tyr Thr Trp Val Thr Gly Arg Glu Pro Leu Thr Tyr Tyr		
115	120	125
Asp Met Asn Leu Ser Ala Gln Asp His Gln Thr Phe Phe Thr Cys Asp		
130	135	140
Ser Asp His Leu Arg Pro Ala Asp Ala Ile Met Gln Lys Ala Trp Arg		
145	150	155
Glu Arg Asn Pro Gln Ala Arg Ile Ser Ala Ala His Glu Ala Leu Glu		
165	170	175
Ile Asn Glu Thr Arg His Gln Cys Leu Gly Val His Gln Lys Lys Ala		
180	185	190
Ser Asn Val Cys Gln Lys Thr Arg Glu Asp Gln Gly Ser Lys Ala Leu		
195	200	205
Leu Glu Leu Gln Ala Tyr Ala Asp Val Gln Ala Val Leu Ala Lys Tyr		
210	215	220
Asp Asp Ile Ser Leu Pro Lys Ser Ala Thr Ile Cys Tyr Thr Ala Ala		
225	230	235
Leu Leu Lys Ala Arg Ala Val Ser Asp Lys Phe Ser Pro Glu Ala Ala		
245	250	255
Ser Arg Arg Gly Leu Ser Thr Ala Glu Met Asn Ala Val Glu Ala Ile		
260	265	270
His Arg Ala Val Glu Phe Asn Pro His Val Pro Lys Tyr Leu Leu Glu		
275	280	285
Met Lys Ser Leu Ile Leu Pro Pro Glu His Ile Leu Lys Arg Gly Asp		
290	295	300
Ser Glu Ala Ile Ala Tyr Ala Phe Phe His Leu Ala His Trp Lys Arg		
305	310	315
Val Glu Gly Ala Leu Asn Leu Leu His Cys Thr Trp Glu Gly Thr Phe		
325	330	335
Arg Met Ile Pro Tyr Pro Leu Glu Lys Gly His Leu Phe Tyr Pro Tyr		
340	345	350
Pro Ile Cys Thr Glu Thr Ala Asp Arg Glu Leu Leu Pro Ser Phe His		
355	360	365
Glu Val Ser Val Tyr Pro Lys Lys Glu Leu Pro Phe Phe Ile Leu Phe		
370	375	380
Thr Ala Gly Leu Cys Ser Phe Thr Ala Met Leu Ala Leu Leu Thr His		
385	390	395
Gln Phe Pro Glu Leu Met Gly Val Phe Ala Lys Ala Val Ser Val Cys		
405	410	415
Leu Glu Gly Leu Gly Glu Trp Met Gly Lys Ala Lys Gly Ile Lys		
420	425	430
Ala Ala		

<210> 5969
<211> 429
<212> DNA
<213> Homo sapiens

<400> 5969
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120

attgagaaga tcctgagcga ggaccccccgg tggcaagatg ccaacttcgt gctgggcagc
 180
 tacaagacgg agcagtcccc gaagccgcca cgcctgtgcc gccagggtca tgctgtcccc
 240
 cactaccaca atagccggga caggccgcgc aaccccccgc gttccagta caggtccacg
 300
 ccctgccccca gcgtgaagca cggggatgag tggggggaaac cctcacgctg cgatggcg
 360
 gacggctgcc agtattgccca ctccgcacg gagcagcagt tccatccccga gatctacaaa
 420
 tctacaaaa
 429

<210> 5970
 <211> 143
 <212> PRT
 <213> Homo sapiens

<400> 5970
 Arg Pro Pro Val Cys Asp Val Arg Glu Leu Gln Ala Gln Glu Ala Leu
 1 5 10 15
 Gln Asn Gly Gln Leu Gly Gly Glu Gly Val Pro Asp Leu Gln Pro
 20 25 30
 Gly Val Leu Ala Ser Gln Ala Met Ile Glu Lys Ile Leu Ser Glu Asp
 35 40 45
 Pro Arg Trp Gln Asp Ala Asn Phe Val Leu Gly Ser Tyr Lys Thr Glu
 50 55 60
 Gln Cys Pro Lys Pro Pro Arg Leu Cys Arg Gln Gly Tyr Ala Cys Pro
 65 70 75 80
 His Tyr His Asn Ser Arg Asp Arg Arg Arg Asn Pro Arg Arg Phe Gln
 85 90 95
 Tyr Arg Ser Thr Pro Cys Pro Ser Val Lys His Gly Asp Glu Trp Gly
 100 105 110
 Glu Pro Ser Arg Cys Asp Gly Gly Asp Gly Cys Gln Tyr Cys His Ser
 115 120 125
 Arg Thr Glu Gln Gln Phe His Pro Glu Ile Tyr Lys Ser Thr Lys
 130 135 140

<210> 5971
 <211> 565
 <212> DNA
 <213> Homo sapiens

<400> 5971
 gcgcccccatttcggagagt tccctcagcc ccaggactct ggatgttagcc gttttcatgc
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 tgtgaatagc acagtcttcc ctttcatgtg gcactgaagt taaaatgcat agagctttt
 120
 catgtccctt aggtcagcta agcccacatc agtgtccaaa taggcaacat ccctattta
 180
 tagatggtca tccccatttt agagatactt ccctttata tccccatttt acaggtgaag
 240
 gaattgaggc acagaagggtt aggtcacttc tgcaagatga ccagctgaac caaaattca
 300

gggcttcaaa caccaaatgt gttcccttgc ctccgtttc ccacttgctt cccagaggct
 360
 cagcaagtag cctctggcca ctgagcatcc tcccgcccac tttgctccct gcctccctgat
 420
 cccaggactg tggccgtgga tgccagagcg aggatgtgaa tcctgttggg ttctgaagcc
 480
 cacacacctacc ctcagecctt aagctgcagc aatggctgct tccagatgag cacaccctcg
 540
 gggtgtcangc gtccagtgtc acgat
 565

<210> 5972
 <211> 104
 <212> PRT
 <213> Homo sapiens

<400> 5972
 Met His Arg Ala Leu Ser Cys Pro Leu Gly Gln Leu Ser Pro His Gln
 1 5 10 15
 Cys Pro Asn Arg Gln His Pro Tyr Phe Ile Asp Gly His Pro His Phe
 20 25 30
 Arg Asp Ser Ser Leu Leu Tyr Pro His Phe Thr Gly Glu Gly Ile Glu
 35 40 45
 Ala Gln Lys Val Arg Ser Leu Leu Gln Asp Asp Gln Leu Asn Gln Asn
 50 55 60
 Phe Arg Ala Ser Asn Thr Lys Cys Val Pro Leu Ser Ser Val Ser His
 65 70 75 80
 Leu Leu Pro Arg Gly Ser Ala Ser Ser Leu Trp Pro Leu Ser Ile Leu
 85 90 95
 Pro Pro Thr Leu Leu Pro Ala Ser
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<210> 5973
 <211> 797
 <212> DNA
 <213> Homo sapiens

<400> 5973
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 cgccccagtga gtttagcatgg agggcagtgg gaccggaaaa agacgtggaa aagctgcgaa
 120
 aacgagccctt cgaatcatgg acgcgcgggc ccagctcctc ctccgagttc ctatccgg
 180
 gcccgtactc acatccgggg ccctcactca catccggac cctcatccgg ggctctcacc
 240
 cacatccggg accctcatgc ctggcggag gagggggggc ctttcattcg ggacccctgc
 300
 actccgtcgcc cggaagtgcc accgagaagc gccggcctcg gggctgtcta cagcggcccg
 360
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 420
 cccctccctt cggtgagtaa ccggaaagccg ttttgggtc gcagcgggggt ggcagttgt
 480

tttgccttca cgggagtaga aggaggcggc gtccggcgcg gccgacggta gttcgcttcc
 540
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 600
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 660
 gtctgtatgt cctcactggt cctttggga ctttgccttg gcctcggtgc tctcaggatt
 720
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 780
 ttccctcggtt ccgaatt
 797

<210> 5974
 <211> 107
 <212> PRT
 <213> Homo sapiens

<400> 5974
 Met Glu Gly Ser Gly Thr Gly Lys Arg Arg Gly Lys Ala Ala Lys Thr
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 Ser Leu Arg Ile Met Asp Ala Arg Ala Gln Leu Leu Arg Val Pro
 20 25 30
 His Pro Gly Pro Ser Leu Thr Ser Gly Ala Leu Thr His Ile Arg Asp
 35 40 45
 Pro His Pro Gly Leu Ser Pro Thr Ser Gly Thr Leu Met Pro Gly Arg
 50 55 60
 Arg Arg Gly Gly Pro Ser Phe Gly Thr Pro Ala Leu Arg Arg Arg Lys
 65 70 75 80
 Cys His Arg Glu Ala Pro Ala Ser Gly Leu Ser Thr Ala Ala Arg Glu
 85 90 95
 Arg Leu Trp Trp Pro Arg Ala Arg Val Cys Arg
 100 105

<210> 5975
 <211> 2175
 <212> DNA
 <213> Homo sapiens

<400> 5975
 nntcaggtca ccacatacta ttatgttggg tttgcataatt tgatgatgct tcgttaccag
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 gatgccatcc gggtcttcgc caacatccctc ctctacatcc agaggaccaa gagcatgttc
 120
 cagagggcca cgtacaagta tgagatgatt aacaaggcaga atgagcagat gcatgcgtg
 180
 ctggccattg ccctcacatg gtacccatg cgtatcgatg agagcattca cctccagctg
 240
 cgggagaaat atggggacaa gatgttgcgc atgtcttatac ccgctgtatga ttatgagtct
 300
 gaggcggctt atgaccctta cgcttateccc agegactatg atatgcacac aggagatcca
 360
 aagcaggacc ttgcttatga acgtcaagtat gaacagcaaa cctatcaggt gatccctgag
 420

gtgatcaaaa acttcatcca gtatttccac aaaactgtct cagatttgat tgaccagaaaa
480
gtgtatgagc tacaggccag tcgtgtctcc agtcatgtca ttgaccagaa ggtgtatgag
540
atccaggaca tctatgagaa cagctggacc aagctgactg aaagattctt caagaataca
600
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660
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720
gagcagaggt ttgaatccta ttacaactac tgcaatctct tcaactacat tcttaatgcc
780
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840
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900
gagattgact ttcttcgttc caatccaaa atctggaaatg ttcatagttgt cctcaatgtc
960
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1020
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1080
tacttcagcc tggtcgggt tctccgcctg cactccctgt taggagatta ctaccaggcc
1140
atcaagggtgc tggagaacat cgaactgaac aagaagagta tgtatccccg tgtgccagag
1200
tgccaggta ccacatacta ttatgttggg tttgcatttt tgatgtgcg tcgttaccag
1260
gatgccatcc gggcttcgc caacatcctc ctctacatcc agaggaccaa gagcatgttc
1320
cagaggacca cgtacaagta tgagatgatt aacaaggaga atgagcagat gcatgcgt
1380
ctggccatttgc ccctcacatgt gtacccatg cgtatcgatg agagcattca cctccagctg
1440
cgggagaaat atggggacaa gatgttgcgc atgcagaaag gtgacccaca agtctatgaa
1500
gaactttca gttactcctg ccccaagtcc ctgtcgccctg tagtgcccaa ctatgataat
1560
gtgcacccca actaccacaa agagcccttc ctgcagcagc tgaagggttt ttctgtgaa
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1680
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1740
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1800
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1860
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1920
gaggagcttta atcgaaccctt gaagaagatg ggacagagac cttgtatgata ttccacacaca
1980
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2040

accttagatca gccatcagcc tgtcaactca gtaacaagt taaggaccga agtgttcaa
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 2160
 aaaaaaaaaaaa aaaaa
 2175

<210> 5976
 <211> 564
 <212> PRT
 <213> Homo sapiens

<400> 5976
 Met Ser Tyr Pro Ala Asp Asp Tyr Glu Ser Glu Ala Ala Tyr Asp Pro
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 Tyr Ala Tyr Pro Ser Asp Tyr Asp Met His Thr Gly Asp Pro Lys Gln
 20 25 30
 Asp Leu Ala Tyr Glu Arg Gln Tyr Glu Gln Gln Thr Tyr Gln Val Ile
 35 40 45
 Pro Glu Val Ile Lys Asn Phe Ile Gln Tyr Phe His Lys Thr Val Ser
 50 55 60
 Asp Leu Ile Asp Gln Lys Val Tyr Glu Leu Gln Ala Ser Arg Val Ser
 65 70 75 80
 Ser Asp Val Ile Asp Gln Lys Val Tyr Glu Ile Gln Asp Ile Tyr Glu
 85 90 95
 Asn Ser Trp Thr Lys Leu Thr Glu Arg Phe Phe Lys Asn Thr Pro Trp
 100 105 110
 Pro Glu Ala Glu Ala Ile Ala Pro Gln Val Gly Asn Asp Ala Val Phe
 115 120 125
 Leu Ile Leu Tyr Lys Glu Leu Tyr Tyr Arg His Ile Tyr Ala Lys Val
 130 135 140
 Ser Gly Gly Pro Ser Leu Glu Gln Arg Phe Glu Ser Tyr Tyr Asn Tyr
 145 150 155 160
 Cys Asn Leu Phe Asn Tyr Ile Leu Asn Ala Asp Gly Pro Ala Pro Leu
 165 170 175
 Glu Leu Pro Asn Gln Trp Leu Trp Asp Ile Ile Asp Glu Phe Ile Tyr
 180 185 190
 Gln Phe Gln Ser Phe Ser Gln Tyr Arg Cys Lys Thr Ala Lys Lys Ser
 195 200 205
 Glu Glu Glu Ile Asp Phe Leu Arg Ser Asn Pro Lys Ile Trp Asn Val
 210 215 220
 His Ser Val Leu Asn Val Leu His Ser Leu Val Asp Lys Ser Asn Ile
 225 230 235 240
 Asn Arg Gln Leu Glu Val Tyr Thr Ser Gly Gly Asp Pro Glu Ser Val
 245 250 255
 Ala Gly Glu Tyr Gly Arg His Ser Leu Tyr Lys Met Leu Gly Tyr Phe
 260 265 270
 Ser Leu Val Gly Leu Leu Arg Leu His Ser Leu Leu Gly Asp Tyr Tyr
 275 280 285
 Gln Ala Ile Lys Val Leu Glu Asn Ile Glu Leu Asn Lys Lys Ser Met
 290 295 300
 Tyr Ser Arg Val Pro Glu Cys Gln Val Thr Thr Tyr Tyr Tyr Val Gly
 305 310 315 320
 Phe Ala Tyr Leu Met Met Arg Arg Tyr Gln Asp Ala Ile Arg Val Phe

325	330	335
Ala Asn Ile Leu Leu Tyr Ile Gln Arg Thr Lys Ser Met Phe Gln Arg		
340	345	350
Thr Thr Tyr Lys Tyr Glu Met Ile Asn Lys Gln Asn Glu Gln Met His		
355	360	365
Ala Leu Leu Ala Ile Ala Leu Thr Met Tyr Pro Met Arg Ile Asp Glu		
370	375	380
Ser Ile His Leu Gln Leu Arg Glu Lys Tyr Gly Asp Lys Met Leu Arg		
385	390	395
Met Gln Lys Gly Asp Pro Gln Val Tyr Glu Glu Leu Phe Ser Tyr Ser		400
405	410	415
Cys Pro Lys Phe Leu Ser Pro Val Val Pro Asn Tyr Asp Asn Val His		
420	425	430
Pro Asn Tyr His Lys Glu Pro Phe Leu Gln Gln Leu Lys Val Phe Ser		
435	440	445
Asp Glu Val Gln Gln Gln Ala Gln Leu Ser Thr Ile Arg Ser Phe Leu		
450	455	460
Lys Leu Tyr Thr Thr Met Pro Val Ala Lys Leu Ala Gly Phe Leu Asp		
465	470	475
Leu Thr Glu Gln Glu Phe Arg Ile Gln Leu Leu Val Phe Lys His Lys		480
485	490	495
Met Lys Asn Leu Val Trp Thr Ser Gly Ile Ser Ala Leu Asp Gly Glu		
500	505	510
Phe Gln Ser Ala Ser Glu Val Asp Phe Tyr Ile Asp Lys Asp Met Ile		
515	520	525
His Ile Ala Asp Thr Lys Val Ala Arg Arg Tyr Gly Asp Phe Phe Ile		
530	535	540
Arg Gln Ile His Lys Phe Glu Glu Leu Asn Arg Thr Leu Lys Lys Met		
545	550	555
Gly Gln Arg Pro		560

<210> 5977
<211> 2320
<212> DNA
<213> Homo sapiens

<400> 5977
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120
ccccagtgact ttgggcttgg tcatgtact tgctttggc aatgaaatgt gagtagacat
180
caagtataacc accatcacac agaaatttta ttttttattt tatttttat agagacaggg
240
tctcaactaca ttgccttagat tggctcaaa ctccctgggtt caagcaatct tcctcttctt
300
ggcctcccaa agtgttggga ttgcagggtgt gcccactac gcccagttt aaaaatttt
360
taatgcatgt ggtaatccac aggagatcac atttagtata tgaccaagtt aattaagaag
420
tcaaaaaaaca cgtaaatttt aagcagaata aggctgggtt cggtggctca tgcctgtat
480

cccagcactt tgggaggcag aggtgggcag atcattnagg ccaggagttc gagaccagcc
540
tggacaacat ggcganaagt ctttactaaa aatcacaaaaaa tcagctggc gtggtgtac
600
acacccgtga tcccagctac tcaggaggt taggcacatg atncgcttga acctgggaga
660
tggaagctgc agtaagctag atcctgccac tgtactccag cctgggtgac agatcaagac
720
tctaactaaa aaaccccca aaaaacaat agttaacttgg aaaacttccg acatttattt
780
acttcctggac aaacaaatga gtgggaagaa tcaagtatac acctcttaat tgtatTTTT
840
ttttttttt agacagagtc ttgctctgtc gcccaggctg gagtacagt gacgatctca
900
gctcaactgca acctttgcct cccgggttca ggtgattctc ctgcctcagec ctcccgagta
960
gccgggattta taggcatgga gaaccacacc tggttagttt ttgtatTTT agtagagatg
1020
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 35 40 45
 Thr His Leu Val Leu Ile Cys Tyr Asp Val Met Asn Pro Thr Ser Tyr
 50 55 60
 Asp Asn Val Leu Ile Lys Trp Phe Pro Glu Val Thr His Phe Cys Arg
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 Gly Ile Pro Met Val Leu Ile Gly Cys Lys Thr Asp Leu Arg Lys Asp
 85 90 95
 Lys Glu Gln Leu Arg Lys Leu Arg Ala Ala Gln Leu Glu Pro Ile Thr
 100 105 110
 Tyr Met Gln Gly Leu Ser Ala Cys Glu Gln Ile Arg Ala Ala Leu Tyr
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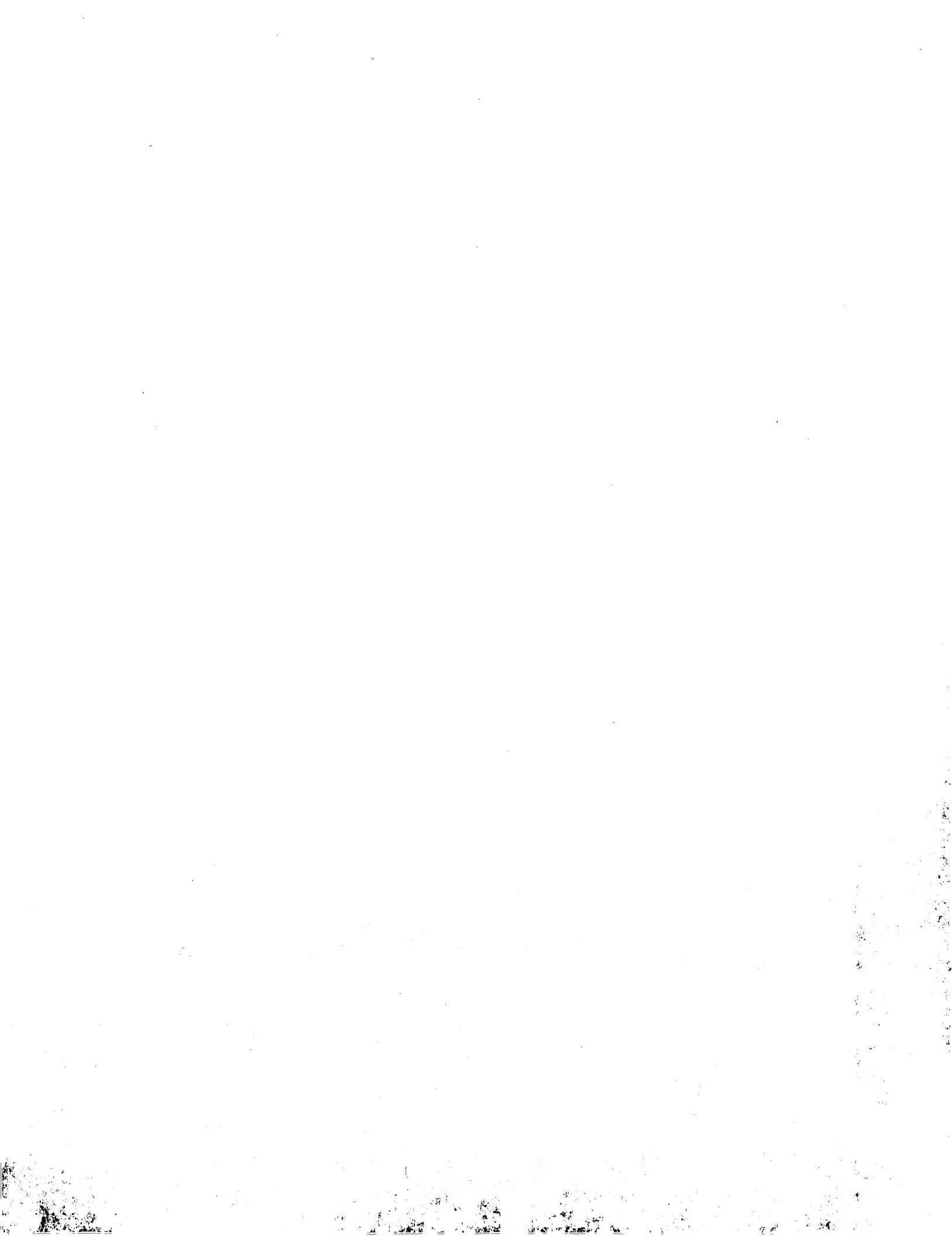
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 35 40 45
 Trp Ile Lys Ala Arg Ser Gly Asp Asn Pro Val Tyr Ile Trp Gly His
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 Ser Leu Gly Thr Gly Val Ala Thr Ile Trp Cys Gly Ala Ser Val Ser
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 Glu Thr Pro Pro Asp Ala Leu Ile Leu Glu Ser Pro Phe Thr Asn Ile
 85 90 95
 Arg Glu Glu Ala Lys Ser His Pro Phe Ser Val Ile Tyr Arg Tyr Phe
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 Pro Gly Phe Asp Trp Phe Phe Leu Asp Pro Ile Thr Ser Ser Gly Ile
 115 120 125
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 130 135 140
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 Lys Leu Tyr Ser Ile Ala Ala Pro Ala Arg Ser Phe Arg Asp Phe Lys
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 Val Gln Phe Val Pro Phe His Ser Asp Leu Gly Tyr Arg His Lys Tyr
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<400> 5989

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35 40 45
Val Asn Thr His Val Trp Thr Lys Ser Lys Phe Met Gly Met Ser Val
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Gly Val Ser Met Ile Gly Glu Gly Val Leu Arg Leu Leu Glu His Gly
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Glu Glu Tyr Val Phe Thr Leu Pro Ser Ala Tyr Ala Arg Ser Ile Leu
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Thr Ile Pro Trp Val Glu Leu Gly Gly Lys Val Ser Ile Asn Cys Ala
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Lys Thr Gly Tyr Ser Ala Thr Val Ile Phe His Thr Lys Pro Phe Tyr
115 120 125
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Phe Thr Tyr Asn Asn Gly Glu Thr Lys Val Ile Asp Thr Thr Leu
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Pro Val Tyr Pro Lys Lys Ile Arg Pro Leu Glu Lys Gln Gly Pro Met
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Glu Ser Arg Asn Leu Trp Arg Glu Val Thr Arg Tyr Leu Arg Leu Gly
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Asp Ile Asp Ala Ala Thr Glu Gln Lys Arg His Leu Glu Glu Lys Gln
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Arg Val Glu Glu Arg Lys Arg Glu Asn Leu Arg Thr Pro Trp Lys Pro
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<213> Homo sapiens

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 <211> 301
 <212> PRT
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 Lys Cys Ser Thr Leu Ile Val Thr Asp Leu Ala Ala Arg Gly Leu Asp
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Asp Leu His Leu Phe Leu Gly Arg Ser Leu Xaa Pro Arg Pro Thr Pro		240
245	250	255
Gln Gly Ala Leu Arg Cys Gly Arg Cys Gly Trp His Ala Gly Ser Gly		
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<212> DNA

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 Cys Glu Arg Pro His Arg Phe Ser Lys Gly Leu Asn Gly Thr Pro Arg
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 Met Ala Val Phe Ser Tyr Leu Ser His Gln Asp Leu Cys Val Cys Met
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 275 280 285
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<210> 6000

<211> 757

<212> PRT

<213> Homo sapiens

<400> 6000
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 Gln Arg Pro Asp Gln Leu Asp Lys Val Glu Gln Tyr Arg Arg Arg Glu
 35 40 45
 Ala Arg Lys Lys Ala Ser Val Glu Ala Arg Leu Lys Ala Ala Ile Gln
 50 55 60
 Ser Gln Leu Asp Gly Val Arg Thr Gly Leu Ser Gln Leu His Asn Ala
 65 70 75 80
 Leu Asn Asp Val Lys Asp Ile Gln Gln Ser Leu Ala Asp Val Ser Lys
 85 90 95
 Asp Trp Arg Gln Ser Ile Asn Thr Ile Glu Ser Leu Lys Asp Val Lys
 100 105 110
 Asp Ala Val Val Gln His Ser Gln Leu Ala Ala Val Glu Asn Leu
 115 120 125
 Lys Asn Ile Phe Ser Val Pro Glu Ile Val Arg Glu Thr Gln Asp Leu
 130 135 140
 Ile Glu Gln Gly Ala Leu Leu Gln Ala His Arg Lys Leu Met Asp Leu
 145 150 155 160
 Glu Cys Ser Arg Asp Gly Leu Met Tyr Glu Gln Tyr Arg Met Asp Ser
 165 170 175
 Gly Asn Thr Arg Asp Met Thr Leu Ile His Gly Tyr Phe Gly Ser Thr
 180 185 190
 Gln Gly Leu Ser Asp Glu Leu Ala Lys Gln Leu Trp Met Val Leu Gln
 195 200 205
 Arg Ser Leu Val Thr Val Arg Arg Asp Pro Thr Leu Leu Val Ser Val
 210 215 220
 Val Arg Ile Ile Glu Arg Glu Glu Lys Ile Asp Arg Arg Ile Leu Asp
 225 230 235 240
 Arg Lys Lys Gln Thr Gly Phe Val Pro Pro Gly Arg Pro Lys Asn Trp
 245 250 255
 Lys Glu Lys Met Phe Thr Ile Leu Glu Arg Thr Val Thr Thr Arg Ile
 260 265 270
 Glu Gly Thr Gln Ala Asp Thr Arg Glu Ser Asp Lys Met Trp Leu Val

275	280	285
Arg His Leu Glu Ile Ile Arg Lys Tyr Val Leu Asp Asp Leu Ile Val		
290	295	300
Ala Lys Asn Leu Met Val Gln Cys Phe Pro Pro His Tyr Glu Ile Phe		
305	310	315
Lys Asn Leu Leu Asn Met Tyr His Gln Ala Leu Ser Thr Arg Met Gln		
325	330	335
Asp Leu Ala Ser Glu Asp Leu Glu Ala Asn Glu Ile Val Ser Leu Leu		
340	345	350
Thr Trp Val Leu Asn Thr Tyr Thr Ser Thr Glu Met Met Arg Asn Val		
355	360	365
Glu Leu Ala Pro Glu Val Asp Val Gly Thr Leu Glu Pro Leu Leu Ser		
370	375	380
Pro His Val Val Ser Glu Leu Leu Asp Thr Tyr Met Ser Thr Leu Thr		
385	390	395
Ser Asn Ile Ile Ala Trp Leu Arg Lys Ala Leu Glu Thr Asp Lys Lys		
405	410	415
Asp Trp Val Lys Glu Thr Glu Pro Glu Ala Asp Gln Asp Gly Tyr Tyr		
420	425	430
Gln Thr Thr Leu Pro Ala Ile Val Phe Gln Met Phe Glu Gln Asn Leu		
435	440	445
Gln Val Ala Ala Gln Ile Ser Glu Asp Leu Lys Thr Lys Val Leu Val		
450	455	460
Leu Cys Leu Gln Gln Met Asn Ser Phe Leu Ser Arg Tyr Lys Asp Glu		
465	470	475
Ala Gln Leu Tyr Lys Glu Glu His Leu Arg Asn Arg Gln His Pro His		
485	490	495
Cys Tyr Val Gln Tyr Met Ile Ala Ile Ile Asn Asn Cys Gln Thr Phe		
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Lys Glu Ser Ile Val Ser Leu Lys Arg Lys Tyr Leu Lys Asn Glu Val		
515	520	525
Glu Glu Gly Val Ser Pro Ser Gln Pro Ser Met Asp Gly Ile Leu Asp		
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Ala Ile Ala Lys Glu Gly Cys Ser Gly Leu Leu Glu Val Phe Leu		
545	550	555
Asp Leu Glu Gln His Leu Asn Glu Leu Met Thr Lys Lys Trp Leu Leu		
565	570	575
Gly Ser Asn Ala Val Asp Ile Ile Cys Val Thr Val Glu Asp Tyr Phe		
580	585	590
Asn Asp Phe Ala Lys Ile Lys Lys Pro Tyr Lys Arg Met Thr Ala		
595	600	605
Glu Ala His Arg Arg Val Val Val Glu Tyr Leu Arg Ala Val Met Gln		
610	615	620
Lys Arg Ile Ser Phe Arg Ser Pro Glu Glu Arg Lys Glu Gly Ala Glu		
625	630	635
Lys Met Val Arg Glu Ala Glu Gln Arg Arg Phe Leu Phe Arg Lys Leu		
645	650	655
Ala Ser Gly Phe Gly Glu Asp Val Asp Gly Tyr Cys Asp Thr Ile Val		
660	665	670
Ala Val Ala Glu Val Ile Lys Leu Thr Asp Pro Ser Leu Leu Tyr Leu		
675	680	685
Glu Val Ser Thr Leu Val Ser Lys Tyr Pro Asp Ile Arg Asp Asp His		
690	695	700
Ile Gly Ala Leu Leu Ala Val Arg Gly Asp Ala Ser Arg Asp Met Lys		

705	710	715	720
Gln Thr Ile Met Glu	Thr Leu Glu Gln Gly	Pro Ala Gln Ala Ser Pro	
725	730	735	
Ser Tyr Val Pro Leu Phe Lys Asp	Ile Val Val Pro Ser Leu Asn Val		
740	745	750	
Ala Lys Leu Leu Lys			
755			

<210> 6001
<211> 2490
<212> DNA
<213> Homo sapiens

<400> 6001
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120 gactgggagg cagagccgcc gc当地aggggg cctcggttaa acactggctg ttcaatcacc
180 tgcaagacga aggaggcaag gatgctgttgc gc当地gggtac aagcattcct cgtcagcaac
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720 ggattacca tgatggatcatcattgcc atcggagctg gcatcatctt gggctactcc
780 tacaagaggg ggaaggattt gaaagaacag catgatcaga aagtatgtga gagggagatg
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<210> 6002
 <211> 263
 <212> PRT
 <213> Homo sapiens

<400> 6002
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Tyr Arg Glu Asp Gln Thr Ser Pro Ala Pro Gly Leu Arg Cys Leu Asn		
35	40	45
Trp Leu Asp Ala Gln Ser Gly Leu Ala Ser Ala Pro Val Ser Gly Ala		
50	55	60
Gly Asn His Ser Tyr Cys Arg Asn Pro Asp Glu Asp Pro Ala Gly Pro		
65	70	75
80		
Trp Cys Tyr Val Ser Gly Glu Ala Gly Val Pro Glu Lys Arg Pro Cys		
85	90	95
Glu Asp Leu Arg Cys Pro Glu Thr Thr Ser Gln Ala Leu Pro Ala Phe		
100	105	110
Thr Thr Glu Ile Gln Glu Ala Ser Glu Gly Pro Gly Ala Asp Glu Val		
115	120	125
Gln Val Phe Ala Pro Ala Asn Ala Leu Pro Ala Arg Ser Glu Ala Ala		
130	135	140
Ala Val Gln Pro Val Ile Gly Ile Ser Gln Arg Val Arg Met Asn Ser		
145	150	155
160		
Lys Glu Lys Lys Asp Leu Gly Thr Leu Gly Tyr Val Leu Gly Ile Thr		
165	170	175
Met Met Val Ile Ile Ile Ala Ile Gly Ala Gly Ile Ile Leu Gly Tyr		
180	185	190
Ser Tyr Lys Arg Gly Lys Asp Leu Lys Glu Gln His Asp Gln Lys Val		
195	200	205
Cys Glu Arg Glu Met Gln Arg Ile Thr Leu Pro Leu Ser Ala Phe Thr		
210	215	220
Asn Pro Thr Cys Glu Ile Val Asp Glu Lys Thr Val Val Val His Thr		
225	230	235
240		
Ser Gln Thr Pro Val Asp Pro Gln Glu Gly Thr Thr Pro Leu Met Gly		
245	250	255
Gln Ala Gly Thr Pro Gly Ala		
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<210> 6003
<211> 3107
<212> DNA
<213> Homo sapiens

<400> 6003
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360 acgcagccag cgtgaaatcc tcaggttggt tctttcaga tgtggaggt gaccgcagcc
420 ctgctcacag agagggtgga aactggcgca ggtgtggag cagcctccct tcggggctc
480

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2100

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 3107

<210> 6004

<211> 140

<212> PRT

<213> Homo sapiens

<400> 6004

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								20					25		30
Pro	Ala	Val	Pro	Lys	Val	Ala	Pro	Gly	Thr	Met	Pro	Thr	Arg	Pro	Glu
								35					40		45
Gly	Gly	Thr	Glu	Thr	Thr	Ser	Met	Leu	Xaa	Val	Pro	Gly	Val	Thr	Gln
								50					55		60
Ser	Pro	Arg	Gly	Glu	Arg	Gly	Ser	Gly	Pro	His	Ala	Val	Gln	Gly	Val
65														75	80
Ala	Leu	Pro	Xaa	Arg	Gly	Ser	Pro	Arg	Gly	Pro	Gly	Pro	Arg	Ala	Pro
								85					90		95
Gly	Arg	Gly	Arg	Asp	Cys	Gly	Asn	Gly	Pro	Ala	Glu	Ala	Pro	Ala	

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Pro Leu Ser Ser Ala Phe Gln Pro Pro Ala Leu Gly Pro Ala Pro Lys
115 120 125
Glu Gly Gly Pro Ser Ser Leu Asn Lys Arg Cys Thr
130 135 140

<210> 6005
<211> 1735
<212> DNA
<213> Homo sapiens

<400> 6005
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<210> 6006

<211> 200

<212> PRT

<213> Homo sapiens

<400> 6006
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 Gly Glu Ala Gly Glu Met Gly Leu Ser Gly Leu Pro Gly Ala Asp Gly
 35 40 45
 Leu Lys Gly Glu Lys Gly Glu Ser Ala Ser Gln Pro Thr Gly Glu Pro
 50 55 60
 Gly Ser Ala His Ser Glu Pro Gly Pro Pro Gly Pro Pro Gly Pro Pro
 65 70 75 80
 Gly Pro Met Gly Leu Gln Gly Ile Gln Gly Pro Lys Gly Leu Asp Gly
 85 90 95
 Ala Lys Gly Glu Lys Gly Ala Ser Gly Glu Arg Gly Ser Ser Gly Leu
 100 105 110
 Pro Gly Pro Val Gly Pro Pro Gly Leu Ile Gly Leu Pro Gly Thr Lys
 115 120 125
 Gly Glu Lys Gly Arg Pro Gly Glu Pro Gly Leu Asp Gly Phe Pro Gly
 130 135 140
 Pro Arg Gly Glu Lys Gly Asp Arg Ser Glu Arg Gly Glu Lys Gly Glu
 145 150 155 160
 Arg Gly Val Pro Gly Arg Lys Gly Val Lys Gly Gln Lys Gly Glu Pro
 165 170 175
 Gly Pro Pro Gly Leu Asp Gln Pro Cys Pro Val Gly Pro Asp Gly Leu
 180 185 190
 Pro Val Pro Gly Cys Trp His Lys
 195 200

<210> 6007

<211> 693

<212> DNA

<213> Homo sapiens

<400> 6007
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180
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660
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693

<210> 6008
<211> 214
<212> PRT
<213> Homo sapiens

<400> 6008
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Thr Ser Asp Gly Ala Ile Ser Val Pro Ser Leu Ser Ala Pro Gly Gln
20 25 30
Gly Lys Met Val Lys Lys Val Cys Pro Cys Asn Gln Leu Cys Arg Thr
35 40 45
Ser Ser Thr Asn Thr Val Gly Ala Thr Val Asn Ser Gln Ala Ala Gln
50 55 60
Ala Gln Pro Pro Ala Met Thr Ser Ser Arg Lys Gly Thr Phe Thr Asp
65 70 75 80
Asp Leu His Lys Leu Val Asp Asn Trp Ala Arg Asp Ala Met Asn Leu
85 90 95
Ser Gly Arg Arg Gly Ser Lys Gly His Met Asn Tyr Glu Gly Pro Gly
100 105 110
Met Ala Arg Lys Phe Ser Ala Pro Gly Gln Leu Cys Ile Ser Met Thr
115 120 125
Ser Asn Leu Gly Gly Ser Ala Pro Ile Ser Ala Ala Ser Ala Thr Ser
130 135 140
Leu Gly His Phe Thr Lys Ser Met Cys Pro Pro Gln Gln Tyr Gly Phe
145 150 155 160
Pro Ala Thr Pro Phe Gly Ala Gln Trp Ser Gly Thr Gly Gly Pro Ala

165 170 175
Pro Gln Pro Leu Gly Gln Phe Gln Pro Val Gly Thr Ala Ser Leu Gln
180 185 190
Asn Phe Asn Ile Ser Asn Leu Gln Lys Ser Ile Ser Asn Pro Pro Gly
195 200 205
Ser Asn Leu Arg Thr Thr
210

<210> 6009
<211> 1570
<212> DNA
<213> Homo sapiens

<400> 6009
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120
gtgggttgtt cgggtggagg cctgggggc gctgccatgg cctgtgcctt gggatatgat
180
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240
aaattgtcag aaacttacag caacagggtc agtccattt cccctggctc tgcaacgctt
300
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360
atgcagggtt gggacgcctg ctcagaggcc ctgataatgt ttgataagga taatttagat
420
gacatgggcct atatcgtgga gaatgtgtc atcatgcattt ctctcaactaa gcagttggag
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gctgtgtctg accgaggtgac ggttctctac aggagcaaag ccattcgcta tacctggcct
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660
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780
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gcagcagagc tagtttagcat ggatgaggaa aaatttgtgg atgccgttaa ctctgcctt
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1080
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1200

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 1320
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 1380
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 1440
 acgttgcata aaaagaacat cctgcccagg acccatcata catatttca agatcttatt
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 taatttaata aacttacttt acattaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 1560
 aaaaaaaaaa
 1570

<210> 6010
 <211> 468
 <212> PRT
 <213> Homo sapiens

<400> 6010
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 His Ser Gly Pro Leu Ala Val Leu Ala Gln Val Val Arg Arg Ser Thr
 20 25 30
 Asp Thr Val Tyr Asp Val Val Ser Gly Gly Gly Leu Val Gly Ala
 35 40 45
 Ala Met Ala Cys Ala Leu Gly Tyr Asp Ile His Phe His Asp Lys Lys
 50 55 60
 Ile Leu Leu Leu Glu Ala Gly Pro Lys Lys Val Leu Glu Lys Leu Ser
 65 70 75 80
 Glu Thr Tyr Ser Asn Arg Val Ser Ser Ile Ser Pro Gly Ser Ala Thr
 85 90 95
 Leu Leu Ser Ser Phe Gly Ala Trp Asp His Ile Cys Asn Met Arg Tyr
 100 105 110
 Arg Ala Phe Arg Arg Met Gln Val Trp Asp Ala Cys Ser Glu Ala Leu
 115 120 125
 Ile Met Phe Asp Lys Asp Asn Leu Asp Asp Met Gly Tyr Ile Val Glu
 130 135 140
 Asn Asp Val Ile Met His Ala Leu Thr Lys Gln Leu Glu Ala Val Ser
 145 150 155 160
 Asp Arg Val Thr Val Leu Tyr Arg Ser Lys Ala Ile Arg Tyr Thr Trp
 165 170 175
 Pro Cys Pro Phe Pro Met Ala Asp Ser Ser Pro Trp Val His Ile Thr
 180 185 190
 Leu Gly Asp Gly Ser Thr Phe Gln Thr Lys Leu Leu Ile Gly Ala Asp
 195 200 205
 Gly His Asn Ser Gly Val Arg Gln Ala Val Gly Ile Gln Asn Val Ser
 210 215 220
 Trp Asn Tyr Asp Gln Ser Ala Val Val Ala Thr Leu His Leu Ser Glu
 225 230 235 240
 Ala Thr Glu Asn Asn Val Ala Trp Gln Arg Phe Leu Pro Ser Gly Pro
 245 250 255
 Ile Ala Leu Leu Pro Leu Ser Asp Thr Leu Ser Ser Leu Val Trp Ser

260	265	270
Thr Ser His Glu His Ala Ala Glu Leu Val Ser Met Asp	Glu Glu Lys	
275	280	285
Phe Val Asp Ala Val Asn Ser Ala Phe Trp Ser Asp Ala Asp His Thr		
290	295	300
Asp Phe Ile Asp Thr Ala Gly Ala Met Leu Gln Tyr Pro Val Ser Leu		
305	310	315
Leu Lys Pro Thr Lys Val Ser Ala Arg Gln Leu Pro Pro Ser Val Pro		320
325	330	335
Trp Val Asp Ala Lys Ser Arg Val Leu Phe Pro Leu Gly Leu Gly His		
340	345	350
Ala Ala Glu Tyr Val Arg Pro Arg Val Ala Leu Ile Gly Asp Ala Ala		
355	360	365
His Arg Val His Pro Leu Ala Gly Gln Gly Val Asn Met Gly Phe Gly		
370	375	380
Asp Ile Ser Ser Leu Ala His His Leu Ser Thr Ala Ala Phe Asn Gly		
385	390	395
Lys Asp Leu Gly Ser Val Ser His Leu Thr Gly Tyr Glu Thr Glu Arg		400
405	410	415
Gln Arg His Asn Thr Ala Leu Leu Ala Ala Thr Asp Leu Leu Lys Arg		
420	425	430
Leu Tyr Ser Thr Ser Ala Ser Pro Leu Val Leu Leu Arg Thr Trp Gly		
435	440	445
Leu Gln Ala Thr Asn Ala Val Ser Pro Leu Lys Glu Gln Ile Met Ala		
450	455	460
Phe Ala Ser Lys		
465		

<210> 6011
<211> 1331
<212> DNA
<213> Homo sapiens

<400> 6011
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120
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180
gagaagggtgg agtgcacccc cagccaggag cacctgaagc accagaccgt ctaccgcctg
240
ctcaagtgcg cgccccagggg caagaacggc ttccccctc tgcacatggc tgtggacaag
300
gacaccacaa acgtggcccg ctatccctg ggcagattcc cctccctgca cgtggtaaaa
360
gtgctgctcg actgcggggc cgaccggac agcaggattt tgacaacaa caccggctca
420
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480
cacatggacg ccaccaatgc cttcaagaag acggcctacg agctgctgga cgagaagctg
540
ctggccaggg gtaccatgca gcccctcaac tacgtgaccc tgcagtgcct tgccggccgg
600

gcccggata agaacaagat cccttacaag ggcttcattcc cgaaagatct agaggcattc
 660
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 720
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 780
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 900
 gcccgtcac tcattcttag ttagaaaaag acacaagacc ttccccacat cctgtctgcc
 960
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 1020
 ctccctgtct agaaaacacag gaagaagttt aggacggctc gcctccctc gtccctttac
 1080
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 1140
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 1200
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 1320
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 1331

<210> 6012
 <211> 219
 <212> PRT
 <213> Homo sapiens

<400> 6012
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 Val Phe Ser Lys Gly Val Arg Glu Val Glu Arg Val Leu Gln Leu Pro
 20 25 30
 Lys Glu Pro Gly Asp Ser Ala Gln Phe Thr Lys Ala Ile Ala Ile Ile
 35 40 45
 Phe Pro Phe Leu Tyr Leu Leu Glu Lys Val Glu Cys Thr Pro Ser Gln
 50 55 60
 Glu His Leu Lys His Gln Thr Val Tyr Arg Leu Leu Lys Cys Ala Pro
 65 70 75 80
 Arg Gly Lys Asn Gly Phe Thr Pro Leu His Met Ala Val Asp Lys Asp
 85 90 95
 Thr Thr Asn Val Gly Arg Tyr Pro Val Gly Arg Phe Pro Ser Leu His
 100 105 110
 Val Val Lys Val Leu Leu Asp Cys Gly Ala Asp Pro Asp Ser Arg Asp
 115 120 125
 Phe Asp Asn Asn Thr Pro Leu His Ile Ala Ala Gln Asn Asn Cys Pro
 130 135 140
 Ala Ile Met Asn Ala Leu Ile Glu Ala Gly Ala His Met Asp Ala Thr
 145 150 155 160
 Asn Ala Phe Lys Lys Thr Ala Tyr Glu Leu Leu Asp Glu Lys Leu Leu

165	170	175
Ala Arg Gly Thr Met Gln Pro Phe Asn Tyr Val Thr Leu Gln Cys Leu		
180	185	190
Ala Ala Arg Ala Leu Asp Lys Asn Lys Ile Pro Tyr Lys Gly Phe Ile		
195	200	205
Pro Glu Asp Leu Glu Ala Phe Ile Glu Leu His		
210	215	

<210> 6013

<211> 2204

<212> DNA

<213> Homo sapiens

<400> 6013

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 120
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 180
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 300
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 360
 tc当地tccgtc agctctcaca cctccagcag cacacacgaa tccacactgg tgatagacca
 420
 tacaaatgtg cacacccagg ctgtgagaaa gc当地cacac aactctccaa tctgcagtc
 480
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 540
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 600
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 720
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 780
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 1380
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 1680
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 1920
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 1980
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 2040
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 2100
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 2160
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 2204

<210> 6014
 <211> 182
 <212> PRT
 <213> Homo sapiens

<400> 6014
 Arg Gln His Asn Lys Asp Lys Pro Phe Lys Cys His Asn Cys His Arg
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 Ala Tyr Thr Asp Ala Ala Ser Leu Glu Val His Leu Ser Thr His Thr
 20 25 30
 Val Lys His Ala Lys Val Tyr Thr Cys Thr Ile Cys Ser Arg Ala Tyr
 35 40 45
 Thr Ser Glu Thr Tyr Leu Met Lys His Met Arg Lys His Asn Pro Pro
 50 55 60
 Asp Leu Gln Gln Gln Val Gln Ala Ala Ala Ala Ala Val Ala
 65 70 75 80
 Gln Ala
 85 90 95
 Gln Ala Gln Ala Gln Ala Ser Gln Ala Ser Gln Gln Gln Gln

100	105	110													
Gln	Pro	Pro	Pro	His	Phe	Gln	Ser								
115							120			125					
Pro	Gly	Ala	Ala	Pro	Gln	Gly	Gly	Gly	Gly	Asp	Ser	Asn	Pro	Asn	
130							135			140					
Pro	Pro	Pro	Gln	Cys	Ser	Phe	Asp	Leu	Thr	Pro	Tyr	Lys	Thr	Ala	Glu
145							150			155			160		
His	His	Lys	Asp	Ile	Cys	Leu	Thr	Val	Thr	Thr	Ser	Thr	Ile	Gln	Val
							165			170			175		
Glu	His	Leu	Ala	Ser	Ser										
						180									

<210> 6015

<211> 612

<212> DNA

<213> Homo sapiens

<400> 6015

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 180
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 360
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 420
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 480
 gccagttaga gaacagtcac acgataaagg cacagcacag cagttggtttgc tctttttt
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 612

<210> 6016

<211> 99

<212> PRT

<213> Homo sapiens

<400> 6016

Met Glu Arg Gly Lys Ala Cys Arg Leu Arg Arg Arg Ala His Arg
 1 5 10 15
 Pro Arg Ser Pro Glu Arg Leu Pro Ala Ser Gln Gly Ile Ser Arg Gly
 20 25 30
 Arg Cys Lys Leu Asn Asn Asn Ser Trp Ser Gly Leu Thr Cys Pro Thr
 35 40 45
 Leu Ser Met Ser Cys Asn Gln Asn Lys Leu Asp Ser Pro Gly Arg Ala

50 55 60
Ser His Gly Ser Ser Leu Pro Phe Asn Gln Asp Ser Gln Lys Pro Ala
65 70 75 80
Phe Tyr Asn Ile Phe Leu Lys Lys Ser His Ser Phe Gln Ser Leu Leu
 85 90 95
Gln Tyr Ile

<210> 6017
<211> 2091
<212> DNA
<213> Homo sapiens

<400> 6017
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120
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240
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420
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480
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600
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660
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720
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 1560
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 1620
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 1680
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 1740
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 1920
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 1980
 aagatagaag aaaaataatt gaaggagaa tcagaaaaat aaagagaaga aaggaaagaa
 2040
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 2091

<210> 6018
 <211> 537
 <212> PRT
 <213> Homo sapiens

<400> 6018
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 Asn Gly Lys Gly Lys Glu Leu Met Trp Asn Phe Arg Glu Leu Ser Glu
 35 40 45
 Asn Ser Gln Gln Ala Ala Asn Val Leu Ser Gly Ala Cys Gly Leu Gln
 50 55 60
 Arg Gly Asp Arg Val Ala Val Met Leu Pro Arg Val Pro Glu Trp Trp
 65 70 75 80
 Leu Val Ile Leu Gly Cys Ile Arg Ala Gly Leu Ile Phe Met Pro Gly
 85 90 95
 Thr Ile Gln Met Lys Ser Thr Asp Ile Leu Tyr Arg Leu Gln Met Ser
 100 105 110
 Lys Ala Lys Ala Ile Val Ala Gly Asp Glu Val Ile Gln Glu Val Asp
 115 120 125
 Thr Val Ala Ser Glu Cys Pro Ser Leu Arg Ile Lys Leu Leu Val Ser

130	135	140
Glu Lys Ser Cys Asp Gly Trp Leu Asn Phe Lys Lys Leu Leu Asn Glu		
145	150	155
Ala Ser Thr Thr His His Cys Val Glu Thr Gly Ser Gln Glu Ala Ser		160
165	170	175
Ala Ile Tyr Phe Thr Ser Gly Thr Ser Gly Leu Pro Lys Met Ala Glu		
180	185	190
His Ser Tyr Ser Ser Leu Gly Leu Lys Ala Lys Met Asp Ala Gly Trp		
195	200	205
Thr Gly Leu Gln Ala Ser Asp Ile Met Trp Thr Ile Ser Asp Thr Gly		
210	215	220
Trp Ile Leu Asn Ile Leu Gly Ser Leu Leu Glu Ser Trp Thr Leu Gly		
225	230	235
Ala Cys Thr Phe Val His Leu Leu Pro Lys Phe Asp Pro Leu Val Ile		240
245	250	255
Leu Lys Thr Leu Ser Ser Tyr Pro Ile Lys Ser Met Met Gly Ala Pro		
260	265	270
Ile Val Tyr Arg Met Leu Leu Gln Gln Asp Leu Ser Ser Tyr Lys Phe		
275	280	285
Pro His Leu Gln Asn Cys Leu Ala Gly Gly Glu Ser Leu Leu Pro Glu		
290	295	300
Thr Leu Glu Asn Trp Arg Ala Gln Thr Gly Leu Asp Ile Arg Glu Phe		
305	310	315
Tyr Gly Gln Thr Glu Thr Gly Leu Thr Cys Met Val Ser Lys Thr Met		320
325	330	335
Lys Ile Lys Pro Gly Tyr Met Gly Thr Ala Ala Ser Cys Tyr Asp Val		
340	345	350
Gln Val Ile Asp Asp Lys Gly Asn Val Leu Pro Pro Gly Thr Glu Gly		
355	360	365
Asp Ile Gly Ile Arg Val Lys Pro Ile Arg Pro Ile Gly Ile Phe Ser		
370	375	380
Gly Tyr Val Glu Asn Pro Asp Lys Thr Ala Ala Asn Ile Arg Gly Asp		
385	390	395
Phe Trp Leu Leu Gly Asp Arg Gly Ile Lys Asp Glu Asp Gly Tyr Phe		400
405	410	415
Gln Phe Met Gly Arg Ala Asp Asp Ile Ile Asn Ser Ser Gly Tyr Arg		
420	425	430
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Val Glu Thr Ala Val Ile Ser Ser Pro Asp Pro Val Arg Gly Glu Val		
450	455	460
Val Lys Ala Phe Val Val Leu Ala Ser Gln Phe Leu Ser His Asp Pro		
465	470	475
Glu Gln Leu Thr Lys Glu Leu Gln Gln His Val Lys Ser Val Thr Ala		480
485	490	495
Pro Tyr Lys Tyr Pro Arg Lys Ile Glu Phe Val Leu Asn Leu Pro Lys		
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<212> DNA

<213> Homo sapiens

<400> 6019

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Cys Thr Arg Cys Tyr Cys Phe Glu Cys Val Asp Ser Leu Val Gly Pro
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195 200 205
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Val Tyr Gly Ala Thr Ala Pro Leu Gly His Thr Cys Asp Arg Pro Pro
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Ser Trp Tyr Leu Phe Gln Phe His Arg Phe Leu Gln Tyr Ala Arg Pro
260 265 270
Lys Pro Gly Ser Pro Arg Pro Phe Phe Trp Met Phe Val Asp Asn Leu
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Phe Phe Met Ser Pro Asn Asp Phe Val Thr Arg Tyr Leu Asn Ile Phe
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Gly Glu Ser Gln Pro Asn Pro Lys Thr Val Glu Leu Leu Ser Gly Val
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 115 120 125
Gln Leu Phe Asp Lys Ala Gly Lys Gly Glu Val Thr Phe Glu Asp Val
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Trp Asp Ser Glu Phe Val Gln Leu His Phe Gly Lys Glu Arg Lys Arg
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His Leu Thr Tyr Ala Glu Phe Thr Gln Phe Leu Leu Glu Ile Gln Leu
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Glu His Ala Lys Gln Ala Phe Val Gln Arg Asp Asn Ala Arg Thr Gly
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Arg Val Thr Ala Ile Asp Phe Arg Asp Ile Met Val Thr Ile Arg Pro
 210 215 220
His Val Leu Thr Pro Phe Val Glu Glu Cys Leu Val Ala Ala Ala Gly
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Ser Val Ala Gly Ala Val Gly Ala Thr Ala Val Tyr Pro Ile Asp Leu		
370	375	380
Val Lys Thr Arg Met Gln Asn Gln Arg Ser Thr Gly Ser Phe Val Gly		
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Ile Leu Ala Gly Gly Cys Ala Gly Gly Ser Gln Val Ile Phe Thr Asn		
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Ser Gly Val Ile Asp Cys Phe Arg Lys Ile Leu Arg Glu Glu Gly Pro		
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Pro Ile Lys Ile Ser Ser Thr Pro Pro Ser Gly Ser Arg Leu Asp Pro
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Gln Ile Ala Ser Ser Ala Phe Pro Gly Leu Gly Ser Leu Gly Gly Gln
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<210> 6026
<211> 496
<212> PRT
<213> Homo sapiens

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Pro	Ala	Ser	Ser	Pro	Val	Ser	Ser	Pro	Ser	Lys	His	Gly	Asp	Arg	Phe
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Ile	Pro	Ser	Arg	Ala	Gly	Ala	Asn	Trp	Ser	Val	Asn	Phe	His	Arg	Ile
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Glu	Asp	Arg	Arg	Leu	Gln	Pro	Ser	Thr	Pro	Glu	Lys	Lys	Gly	Leu	Phe
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Val	Ser	Pro	Tyr	Ser	Leu	Ser	Pro	Val	Ser	Asn	Lys	Ser	Gln	Lys	Leu
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Lys	Val	Leu	Asp	Ala	Pro	Glu	Leu	Gln	Asp	Asp	Phe	Tyr	Leu	Asn	Leu
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Arg	Val	Gly	Ala	Leu	Ala	Trp	Asn	Ala	Glu	Gln	Leu	Ser	Ser	Gly	Ser
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Ser	Glu	Arg	Arg	Leu	Gln	Gly	His	Arg	Gln	Glu	Val	Cys	Gly	Leu	Lys
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Thr	His	Gly	Tyr	Ser	Gln	Asn	Gln	Ile	Leu	Val	Trp	Lys	Tyr	Pro	Ser
420							425				430				
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Val Lys Trp Glu Ser Val Ser Val Leu Asn Leu Phe Thr Arg Ile Arg		
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<211> 305
<212> DNA
<213> *Homo sapiens*

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<210> 6028
<211> 75
<212> PRT
<213> *Homo sapiens*

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<212> DNA
<213> *Homo sapiens*

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120
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 <212> PRT
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Ser Gln Glu Glu Phe Leu Asp Gly Val Leu Met Ser Ala Glu Asn Ser		
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<211> 1316
<212> DNA
<213> Homo sapiens

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<210> 6032
<211> 321
<212> PRT
<213> Homo sapiens

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 35 40 45
Asn Asn Thr Leu Ile Ala Phe Phe Ile Leu Thr Thr Ile Lys Gly Ser
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Ala Phe Leu Ser Ala Ile Phe Leu Ala Leu Ala Thr Tyr Gln Ser Leu
 65 70 75 80
Tyr Pro Leu Thr Leu Phe Val Pro Gly Leu Leu Tyr Leu Leu Gln Arg
 85 90 95
Gln Tyr Ile Pro Val Lys Met Lys Ser Lys Ala Phe Trp Ile Phe Ser
 100 105 110
Trp Glu Tyr Ala Met Met Tyr Val Gly Ser Leu Val Val Ile Ile Cys
 115 120 125
Leu Ser Phe Phe Leu Leu Ser Ser Trp Asp Phe Ile Pro Ala Val Tyr
 130 135 140
Gly Phe Ile Leu Ser Val Pro Asp Leu Thr Pro Asn Ile Gly Leu Phe
 145 150 155 160
Trp Tyr Phe Phe Ala Glu Met Phe Glu His Phe Ser Leu Phe Phe Val
 165 170 175
Cys Val Phe Gln Ile Asn Val Phe Phe Tyr Thr Ile Pro Leu Ala Ile
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Lys Leu Lys Glu His Pro Ile Phe Phe Met Phe Ile Gln Ile Ala Val
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Ile Ala Ile Phe Lys Ser Tyr Pro Thr Val Gly Asp Val Ala Leu Tyr
 210 215 220
Met Ala Phe Phe Pro Val Trp Asn His Leu Tyr Arg Phe Leu Arg Asn
 225 230 235 240
Ile Phe Val Leu Thr Cys Ile Ile Ile Val Cys Ser Leu Leu Phe Pro
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Val Leu Trp His Leu Trp Ile Tyr Ala Gly Ser Ala Asn Ser Asn Phe
 260 265 270
Phe Tyr Ala Ile Thr Leu Thr Phe Asn Val Gly Gln Ile Leu Leu Ile
 275 280 285
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<210> 6033
<211> 5157
<212> DNA
<213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

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 Arg Lys Asp Val Lys Gln Pro Glu Glu Leu Pro Pro Ile Thr Thr Thr
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 Pro Pro Gln Pro Gln Tyr Ser Tyr His Asp Ile Asn Val Tyr Ser Leu
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 Ala Gly Leu Ala Pro His Ile Thr Leu Asn Pro Thr Ile Pro Leu Phe
 85 90 95
 Gln Ala His Pro Gln Leu Lys Gln Cys Val Arg Gln Ala Ile Glu Arg
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 Ala Val Gln Glu Leu Val His Pro Val Val Asp Arg Ser Ile Lys Ile
 115 120 125
 Ala Met Thr Thr Cys Glu Gln Ile Val Arg Lys Asp Phe Ala Leu Asp
 130 135 140
 Ser Glu Glu Ser Arg Met Arg Ile Ala Ala His His Met Met Arg Asn
 145 150 155 160
 Leu Thr Ala Gly Met Ala Met Ile Thr Cys Arg Glu Pro Leu Leu Met
 165 170 175
 Ser Ile Ser Thr Asn Leu Lys Asn Ser Phe Ala Ser Ala Leu Arg Thr
 180 185 190
 Ala Ser Pro Gln Gln Arg Glu Met Met Asp Gln Ala Ala Ala Gln Leu
 195 200 205
 Ala Gln Asp Asn Cys Glu Leu Ala Cys Cys Phe Ile Gln Lys Thr Ala
 210 215 220
 Val Glu Lys Ala Gly Pro Glu Met Asp Lys Arg Leu Ala Thr Glu Phe

225	230	235	240
Glu Leu Arg Lys His Ala Arg Gln Glu Gly Arg Arg Tyr Cys Asp Pro			
245	250	255	
Val Val Leu Thr Tyr Gln Ala Glu Arg Met Pro Glu Gln Ile Arg Leu			
260	265	270	
Lys Val Gly Gly Val Asp Pro Lys Gln Leu Ala Val Tyr Glu Glu Phe			
275	280	285	
Ala Arg Asn Val Pro Gly Phe Leu Pro Thr Asn Asp Leu Ser Gln Pro			
290	295	300	
Thr Gly Phe Leu Ala Gln Pro Met Lys Gln Ala Trp Ala Thr Asp Asp			
305	310	315	320
Val Ala Gln Ile Tyr Asp Lys Cys Ile Thr Glu Leu Glu Gln His Leu			
325	330	335	
His Ala Ile Pro Pro Thr Leu Ala Met Asn Pro Gln Ala Gln Ala Leu			
340	345	350	
Arg Ser Leu Leu Glu Val Val Leu Ser Arg Asn Ser Arg Asp Ala			
355	360	365	
Ile Ala Ala Leu Gly Leu Leu Gln Lys Ala Val Glu Gly Leu Leu Asp			
370	375	380	
Ala Thr Ser Gly Ala Asp Ala Asp Leu Leu Leu Arg Tyr Arg Glu Cys			
385	390	395	400
His Leu Leu Val Leu Lys Ala Leu Gln Asp Gly Arg Ala Tyr Gly Ser			
405	410	415	
Pro Trp Cys Asn Lys Gln Ile Thr Arg Cys Leu Ile Glu Cys Arg Asp			
420	425	430	
Glu Tyr Lys Tyr Asn Val Glu Ala Val Glu Leu Leu Ile Arg Asn His			
435	440	445	
Leu Val Asn Met Gln Gln Tyr Asp Leu His Leu Ala Gln Ser Met Glu			
450	455	460	
Asn Gly Leu Asn Tyr Met Ala Val Ala Phe Ala Met Gln Leu Val Lys			
465	470	475	480
Ile Leu Leu Val Asp Glu Arg Ser Val Ala His Val Thr Glu Ala Asp			
485	490	495	
Leu Phe His Thr Ile Glu Thr Leu Met Arg Ile Asn Ala His Ser Arg			
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Gly Asn Ala Pro Glu Gly Leu Pro Gln Leu Met Glu Val Val Arg Ser			
515	520	525	
Asn Tyr Glu Ala Met Ile Asp Arg Ala His Gly Pro Asn Phe Met			
530	535	540	
Met His Ser Gly Ile Ser Gln Ala Ser Glu Tyr Asp Asp Pro Pro Gly			
545	550	555	560
Leu Arg Glu Lys Ala Glu Tyr Leu Leu Arg Glu Trp Val Asn Leu Tyr			
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His Ser Ala Ala Ala Gly Arg Asp Ser Thr Lys Ala Phe Ser Ala Phe			
580	585	590	
Val Gly Gln Val Glu Leu Leu Glu Arg Lys Met His Gln Gln Gly Ile			
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Leu Lys Thr Asp Asp Leu Ile Thr Arg Phe Phe Arg Leu Cys Thr Glu			
610	615	620	
Met Cys Val Glu Ile Ser Tyr Arg Ala Gln Ala Glu Gln Gln His Asn			
625	630	635	640
Pro Ala Ala Asn Pro Thr Met Ile Arg Ala Lys Cys Tyr His Asn Leu			
645	650	655	
Asp Ala Phe Val Arg Leu Ile Ala Leu Leu Val Lys His Ser Gly Glu			

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Ala Thr Asn Thr Val Thr Lys Ile Asn Leu Leu Asn Lys Val Leu Gly		
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690	695	700
Phe Gln Gln Leu Pro Tyr His Arg Ile Phe Ile Met Leu Leu Leu Glu		
705	710	715
Leu Asn Ala Pro Glu His Val Leu Glu Thr Ile Asn Phe Gln Thr Leu		
725	730	735
Thr Ala Phe Cys Asn Thr Phe His Ile Leu Arg Pro Thr Lys Ala Pro		
740	745	750
Gly Phe Val Tyr Ala Trp Leu Glu Leu Ile Ser His Arg Ile Phe Ile		
755	760	765
Ala Arg Met Leu Ala His Thr Pro Gln Gln Lys Gly Trp Pro Met Tyr		
770	775	780
Ala Gln Leu Leu Ile Asp Leu Phe Lys Tyr Leu Ala Pro Phe Leu Arg		
785	790	795
Asn Val Glu Leu Thr Lys Pro Met Gln Ile Leu Tyr Lys Gly Thr Leu		
805	810	815
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820	825	830
Tyr His Tyr Gly Phe Cys Asp Val Ile Pro Pro Asn Cys Ile Gln Leu		
835	840	845
Arg Asn Leu Ile Leu Ser Ala Phe Pro Arg Asn Met Arg Leu Pro Asp		
850	855	860
Pro Phe Thr Pro Asn Leu Lys Val Asp Met Leu Ser Glu Ile Asn Ile		
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Ala Pro Arg Ile Leu Thr Asn Phe Thr Gly Val Met Pro Pro Gln Phe		
885	890	895
Lys Lys Asp Leu Asp Ser Tyr Leu Lys Thr Arg Ser Pro Val Thr Phe		
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Leu Ser Asp Leu Arg Ser Asn Leu Gln Val Ser Asn Glu Pro Gly Asn		
915	920	925
Arg Tyr Asn Leu Gln Leu Ile Asn Ala Leu Val Leu Tyr Val Gly Thr		
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Gln Ala Ile Ala His Ile His Asn Lys Gly Ser Thr Pro Ser Met Ser		
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Thr Ile Thr His Ser Ala His Met Asp Ile Phe Gln Asn Leu Ala Val		
965	970	975
Asp Leu Asp Thr Glu Gly Arg Tyr Leu Phe Leu Asn Ala Ile Ala Asn		
980	985	990
Gln Leu Arg Tyr Pro Asn Ser His Thr His Tyr Phe Ser Cys Thr Met		
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Leu Tyr Leu Phe Ala Glu Ala Asn Thr Glu Ala Ile Gln Glu Gln Ile		
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Thr Arg Val Leu Leu Glu Arg Leu Ile Val Asn Arg Pro His Pro Trp		
1025	1030	1035
Gly Leu Leu Ile Thr Phe Ile Glu Leu Ile Lys Asn Pro Ala Phe Lys		
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Phe Trp Asn His Glu Phe Val His Cys Ala Pro Glu Ile Glu Lys Leu		
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<211> 320
<212> DNA
<213> Homo sapiens

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<212> PRT
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Arg Gln Val Leu Gln Glu Pro Ser Arg Glu Pro Pro Gly Trp Leu Gly
35 40 45
Ala Trp Pro Arg Ser Gln Ser His Asn Ala His His Cys Pro Thr Met
50 55 60
Pro Phe Arg Met Glu Pro Leu Ile His Trp Ala His Ser His Gly Gln
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Arg Asp Tyr Pro Trp Thr Met Ile Glu Thr Leu Pro Ile Pro Gln Thr
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Gln Gln Gly Leu Cys Asp
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<211> 3910
<212> DNA
<213> Homo sapiens

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 Gly Tyr Val His Pro Asp Leu Leu Lys Asp Phe Cys Met Asn Pro Gln
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 Thr Val Leu Leu Leu Arg Val Ile Ala Ala Phe Cys Phe Leu Gly Ile
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 Pro Ala Leu Lys Ile Thr Arg Arg Tyr Ala Phe Ala His Ile Leu Thr
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 Val Leu Gln Cys Ala Thr Val Ile Gly Phe Ser Tyr Trp Ala Ser Glu
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 130 135 140
 Val Tyr Val Thr Phe Ala Val Ser Phe Tyr Leu Val Ala Gly Ala Gly
 145 150 155 160
 Gly Ala Ser Ile Leu Ala Thr Ala Ala Asn Leu Leu Arg His Tyr Pro
 165 170 175
 Thr Glu Glu Glu Glu Gln Ala Leu Glu Leu Leu Ser Glu Met Glu Glu
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<211> 1130
<212> DNA
<213> Homo sapiens

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cccaccagga acctggcaga ggtggagag actgtcgcaa gggaaagccac agaactgaat
600
gaagatgggtt ctcaggtgaa gagaacgggt ggggctgagg atggagcccc tgcccccttc
660
atagctgtcc agcccttccc ggcattactg gatctcccc tgggctcaga tgcagtcag
720
gccagctgtg gateccggca cacagctgtg gtgacacgaa cagggagct ctacacctgg
780
ggctgggtta aatatggaca gctggccac gaggacacca ccagcttggta tcggccctcg
840
cgtgtggaat actttgtaga taagcaactc caagtaaagg ctgtcacctg tggccgtgg
900
aacacacctg tgtatgtgt ggagaaaagg aagagctgac atgtgtacgt atatgtatat
960
gcaacacactg tgagaccccc atttaggtca aggaaaaacca ttgcctgcac cccaaggggcc
1020
ccatatttgc` ccctccccat cacagtccctg cccttcaccc tcaagcacgg tcctaaactt
1080
gtctgcactt tagaaacacc tggagagcat tggaaaactct gtcgttcaag
1130

<210> 6040
<211> 312
<212> PRT
<213> Homo sapiens

<400> 6040
Xaa Gly Leu Ala Ile Leu Phe Ile His Ala Ala Ala Trp Ala Ser Glu
1 5 10 15
Gly Leu Leu Ala Val Leu Arg Ala Gly Pro Gly Pro Glu Ala Leu Leu

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Gln Val Trp Ala Ala Glu Ser Ala Leu Arg Gly Glu Pro Leu Trp Ala		
35	40	45
Gln Asn Val Val Pro Glu Ala Glu Gly Glu Asp Asp Pro Ala Gly Glu		
50	55	60
Ala Gln Ala Gly Arg Leu Pro Leu Leu Pro Cys Ala Arg Ala Tyr Val		
65	70	75
Ser Pro Arg Ala Pro Phe Tyr Arg Pro Leu Ala Pro Glu Leu Arg Ala		
85	90	95
Arg Gln Leu Glu Leu Gly Ala Glu His Ala Leu Leu Asp Ala Ala		
100	105	110
Gly Gln Val Phe Ser Trp Gly Gly Arg His Gly Gln Leu Gly His		
115	120	125
Gly Thr Leu Glu Ala Glu Leu Glu Pro Arg Leu Leu Glu Ala Leu Gln		
130	135	140
Gly Leu Val Met Ala Glu Val Ala Ala Gly Gly Trp His Ser Val Cys		
145	150	155
Val Ser Glu Thr Gly Asp Ile Tyr Ile Trp Gly Trp Asn Glu Ser Gly		
165	170	175
Gln Leu Ala Leu Pro Thr Arg Asn Leu Ala Glu Asp Gly Glu Thr Val		
180	185	190
Ala Arg Glu Ala Thr Glu Leu Asn Glu Asp Gly Ser Gln Val Lys Arg		
195	200	205
Thr Gly Gly Ala Glu Asp Gly Ala Pro Ala Pro Phe Ile Ala Val Gln		
210	215	220
Pro Phe Pro Ala Leu Leu Asp Leu Pro Met Gly Ser Asp Ala Val Lys		
225	230	235
Ala Ser Cys Gly Ser Arg His Thr Ala Val Val Thr Arg Thr Gly Glu		
245	250	255
Leu Tyr Thr Trp Gly Trp Gly Lys Tyr Gly Gln Leu Gly His Glu Asp		
260	265	270
Thr Thr Ser Leu Asp Arg Pro Arg Arg Val Glu Tyr Phe Val Asp Lys		
275	280	285
Gln Leu Gln Val Lys Ala Val Thr Cys Gly Pro Trp Asn Thr Tyr Val		
290	295	300
Tyr Ala Val Glu Lys Gly Lys Ser		
305	310	

<210> 6041
<211> 291
<212> DNA
<213> Homo sapiens

<400> 6041
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gaagaggaaa ggcttcgacg ggaggaagag gaaaggagac ggatagaaga agaaaggctt
120
cggttggcgc agcaaaagca gcagataatg gcagctttaa actcccgacac tgccgtgcag
180
ttcccagcagt atgcagccca acagtatcca gggactacg aacagcagca aattctcatc
240
cgcccagttgc aggagcaaca ctatcagcag tacatgcagc agttgtatca c
291

<210> 6042
<211> 97
<212> PRT
<213> Homo sapiens

<400> 6042
Thr Arg Glu Gly Glu Glu Arg Glu Arg Leu Gln Lys Glu Glu Glu Lys
1 5 10 15
Arg Arg Arg Glu Glu Glu Glu Arg Leu Arg Arg Glu Glu Glu Arg
20 25 30
Arg Arg Ile Glu Glu Glu Arg Leu Arg Leu Glu Gln Gln Lys Gln Gln
35 40 45
Ile Met Ala Ala Leu Asn Ser Gln Thr Ala Val Gln Phe Gln Gln Tyr
50 55 60
Ala Ala Gln Gln Tyr Pro Gly Asn Tyr Glu Gln Gln Gln Ile Leu Ile
65 70 75 80
Arg Gln Leu Gln Glu Gln His Tyr Gln Gln Tyr Met Gln Gln Leu Tyr
85 90 95
His

<210> 6043
<211> 558
<212> DNA
<213> Homo sapiens

<400> 6043
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120
ttcaagggtgt cttgtacaac ccactgggaa aacaggatct gggaccggtg cgggcacatt
180
ctcctggccc agcacagggg cggtgccacc cacattcggc cccgggtcttg cctaatacat
240
gttttggtaa acactcggtc agagcacccct ctgttttttc cagtcggaa gctccccca
300
gaaatccaca ccccccgcacc accctctcg ggacacggat tcaatgtccc tggtgggtca
360
tctggccttt tcggcctgtg atgtgattcg agcggtgcta tctttAACCT cgggcagggg
420
tgttctcccc cgtcgacgtt gtcagataa cagtcctgca attccatggg ggtggcggca
480
cccggggtct ggcaaagcat aggggcctgc ttgtgtcccc tgctgctgcc ccaagttagtc
540
agaggaggat gtgaattc
558

<210> 6044
<211> 152
<212> PRT
<213> Homo sapiens

<400> 6044

Met Leu Cys Gln Thr Pro Gly Ala Ala Thr Pro Met Glu Leu Gln Asp
 1 5 10 15
 Cys Tyr Leu Ser Asn Val Asp Gly Gly Glu His Pro Cys Pro Arg Leu
 20 25 30
 Lys Ile Ala Pro Leu Glu Ser His His Arg Pro Lys Arg Pro Asp Asp
 35 40 45
 Pro Pro Gly Thr Leu Asn Pro Cys Pro Glu Arg Gly Gly Ala Gly Val
 50 55 60
 Trp Ile Pro Ala Gly Ser Phe Gly Thr Gly Lys Asn Arg Gly Cys Ser
 65 70 75 80
 Asp Arg Val Phe Thr Lys Thr Cys Ile Arg Gln Asp Pro Gly Arg Met
 85 90 95
 Trp Val Ala Pro Pro Leu Cys Trp Ala Arg Arg Met Cys Pro His Arg
 100 105 110
 Ser Gln Ile Leu Phe Pro Gln Trp Val Val Gln Asp Thr Leu Asn Phe
 115 120 125
 Cys Met Asn Trp Asp Ile Gln Asn Ser Leu Glu Gln Pro Pro Pro Ser
 130 135 140
 Thr Leu Cys Leu Asp Ile Ser Tyr
 145 150

<210> 6045

<211> 1916

<212> DNA

<213> Homo sapiens

<400> 6045

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 120
 gtgttcacag acatcgacat cttcagagac ctgcaagaaa tatgcaggaa acagggagtt
 180
 gctgtgtata tccttctgga ccaggtctc ctctctcaat ttctggatat gtgcattggat
 240
 ctgaaaatgttc atccctgaaca ggaaaagtta atgacagttc ggactatcac aggaaatatac
 300
 tactatgcaa ggtcaggaac taagattact gggaaaggttc acgaaaagtt cacgttgatt
 360
 gatggcatcc gcgtggcaac aggctctac agttttacat ggacggatgg caaattaaac
 420
 agcagtaact tggtaattct gtctggccaa gtgggtgaac actttgatct ggagttccga
 480
 atcctgtatg cccagtc当地 gccc当地 cccaaactcc tgtctcaactt ccagagc当地
 540
 aacaagttt当地 atcacctcac caaccgaaaa ccacagtc当地 aggagctcac cctgggcaac
 600
 ctgctgccc当地 tgccggctggc taggctgtca agtactccca ggaaggccga cctggacccca
 660
 gagatgccc当地 cagagggcaaa ggcagagc当地 aagccccatg actgtgagtc ctctactgtt
 720
 agtgaggaag actacttc当地 cagccacagg gacgagctcc agagcagaaa ggccattgac
 780

gctgccactc aaacagagcc aggagaggag atgccaggc tgagtgtgag tgaggtggga
 840
 acacaaacca gcatcaccac agcatgtgc ggtacccaga ctgcagtcat caccaggata
 900
 gcaagctctc aaaccacat ttggccaga tcgaccacta ctcagactga catggatgag
 960
 aacattctct ttcctcgagg aactcaatct acagaagggt caccagtctc aaaaatgtct
 1020
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 1080
 agctccactg gtttccccgc ttccatcaga accactgact tccacaatcc tggctatccc
 1140
 aagtacctgg gcaccccca cctggaaactg tacttgagtg actcaacttag aaacttgaac
 1200
 aaagagcggc aattccactt cgctggtatac aggtcccgcc tcaaccacat gctggctatg
 1260
 ctgtcaagga gaacactctt tactgaaaac cacctggcc ttcattctgg caatttcage
 1320
 agagtttaatt tgcttgctgt tagagatgta gcactttatc cttcctatca gtaactgctc
 1380
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 1440
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 1560
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 1620
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 1680
 aagattataa tactgtatcc ttactatacc ttttctgtgt ttagatacaa ataccattat
 1740
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 1800
 gcattttct taggttgat gctttctgt tttaaagggt tgaatcacca gcattttgt
 1860
 gatcaaaaatc ctattnagaa aaaataaaac tactttctgt ttaaaaaaaaa aacaaa
 1916

<210> 6046
 <211> 457
 <212> PRT
 <213> Homo sapiens

<400> 6046
 Thr Arg Val Glu Thr His Phe Gln Pro Arg Gly Ala Gly Glu Gly
 1 5 10 15
 Pro Tyr Gly Cys Lys Asp Ala Leu Arg Gln Gln Leu Arg Ser Ala Arg
 20 25 30
 Glu Val Ile Ala Val Val Met Asp Val Phe Thr Asp Ile Asp Ile Phe
 35 40 45
 Arg Asp Leu Gln Glu Ile Cys Arg Lys Gln Gly Val Ala Val Tyr Ile
 50 55 60
 Leu Leu Asp Gln Ala Leu Leu Ser Gln Phe Leu Asp Met Cys Met Asp

65	70	75	80
Leu Lys Val His Pro Glu Gln Glu Lys	Leu Met Thr Val Arg Thr Ile		
85	90	95	
Thr Gly Asn Ile Tyr Tyr Ala Arg Ser	Gly Thr Lys Ile Ile Gly Lys		
100	105	110	
Val His Glu Lys Phe Thr Leu Ile Asp	Gly Ile Arg Val Ala Thr Gly		
115	120	125	
Ser Tyr Ser Phe Thr Trp Thr Asp	Gly Lys Leu Asn Ser Ser Asn Leu		
130	135	140	
Val Ile Leu Ser Gly Gln Val Val Glu His	Phe Asp Leu Glu Phe Arg		
145	150	155	160
Ile Leu Tyr Ala Gln Ser Lys Pro Ile Ser	Pro Lys Leu Leu Ser His		
165	170	175	
Phe Gln Ser Ser Asn Lys Phe Asp His	Leu Thr Asn Arg Lys Pro Gln		
180	185	190	
Ser Lys Glu Leu Thr Leu Gly Asn Leu Leu	Arg Met Arg Leu Ala Arg		
195	200	205	
Leu Ser Ser Thr Pro Arg Lys Ala Asp Leu	Asp Pro Glu Met Pro Ala		
210	215	220	
Glu Gly Lys Ala Glu Arg Lys Pro His Asp	Cys Glu Ser Ser Thr Val		
225	230	235	240
Ser Glu Glu Asp Tyr Phe Ser Ser His	Arg Asp Glu Leu Gln Ser Arg		
245	250	255	
Lys Ala Ile Asp Ala Ala Thr Gln Thr	Glu Pro Gly Glu Glu Met Pro		
260	265	270	
Gly Leu Ser Val Ser Glu Val Gly Thr	Gln Thr Ser Ile Thr Thr Ala		
275	280	285	
Cys Ala Gly Thr Gln Thr Ala Val Ile	Thr Arg Ile Ala Ser Ser Gln		
290	295	300	
Thr Thr Ile Trp Ser Arg Ser Thr Thr	Gln Thr Asp Met Asp Glu		
305	310	315	320
Asn Ile Leu Phe Pro Arg Gly Thr Gln	Ser Thr Glu Gly Ser Pro Val		
325	330	335	
Ser Lys Met Ser Val Ser Arg Ser Ser	Leu Lys Ser Ser Ser Ser		
340	345	350	
Val Ser Ser Gln Gly Ser Val Ala Ser	Ser Thr Gly Ser Pro Ala Ser		
355	360	365	
Ile Arg Thr Thr Asp Phe His Asn Pro	Gly Tyr Pro Lys Tyr Leu Gly		
370	375	380	
Thr Pro His Leu Glu Leu Tyr	Leu Ser Asp Ser Leu Arg Asn Leu Asn		
385	390	395	400
Lys Glu Arg Gln Phe His Ala Gly Ile	Arg Ser Arg Leu Asn His		
405	410	415	
Met Leu Ala Met Leu Ser Arg Arg	Thr Leu Phe Thr Glu Asn His Leu		
420	425	430	
Gly Leu His Ser Gly Asn Phe Ser Arg	Val Asn Leu Leu Ala Val Arg		
435	440	445	
Asp Val Ala Leu Tyr Pro Ser Tyr Gln			
450	455		

<210> 6047

<211> 773

<212> DNA

<213> Homo sapiens

<400> 6047
 ggatcctgac ccccgagctt ggcgcctcg ggcctccat tcagtcccg gccgacagcg
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 120
 gatgggaaat gggggatctc atcgcttgcgt agtagaggag actttggggg gaaagtgtatg
 180
 gaggatgggg caagggatcc ggtgtccaaac tctgtgtgtc cctgcagctc ccgtagecca
 240
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 300
 aatggtgcaa acagcttctc tccagtgtgg tccccgtgtc gctgggggac ccagaggagg
 360
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 420
 tcttacccat gactcagttcc ggccttcgtc ccctgcagct gccgcctgag gatgcctacg
 480
 tcggcaatgc tgacatgatc cagccggacc tgacgcaact gcagccaagc ctggatgact
 540
 tcatggacat ctcagatttc ttaccaact cccgcctccc acagccgccc atgcctcaa
 600
 acttcccaga gcccccaac ttccagcccg tggttgactc cctcttcage agtgggaccc
 660
 tggggccaga ggtgcccccg gcttcctcggt ccatgaccca cctctctgga cacagccgtc
 720
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 773

<210> 6048
 <211> 129
 <212> PRT
 <213> Homo sapiens

<400> 6048
 Met Val Lys Arg Val Ser Glu Met Ser Asp Lys Lys Gln Leu Arg Ser
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 Arg Ser Cys Arg Pro Pro Gly Ser Ser Ser Gly Ser Pro Ser Ser Thr
 20 25 30
 Gly Thr Thr Leu Glu Lys Ser Cys Leu His His Cys Ser Gly Gly Gly
 35 40 45
 His Leu Pro Ser Ala Cys Leu Gly Ala Arg Arg Ser Ser Ser Leu Leu
 50 55 60
 Gly Tyr Gly Ser Cys Arg Asp Thr Gln Ser Trp Thr Pro Asp Pro Leu
 65 70 75 80
 Pro His Pro Pro Ser Leu Ser Pro Gln Ser Leu Leu Tyr Ser Gln Ala
 85 90 95
 Met Arg Ser Pro Ile Ser His Gln Glu Leu Thr Arg Pro Leu Gly Lys
 100 105 110
 Glu Ala Ala Arg Arg Arg Cys Gly His Thr Val Ala Leu Ser Ala Arg
 115 120 125
 Asp

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<210> 6049
<211> 479
<212> DNA
<213> Homo sapiens

<400> 6049
accgggtttt cttcccccag tccctcagct gctgctgctg ctcaggaggt cagatctgcc
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actgatggta ataccagcac cactccgccc acctctgcac agaagagaaa gttaaacagc
120
agcagcagta gcagcagtaa cagtagtaac gagagagaag actttgattc cacctcttcc
180
tcctcttcca ctcccttcc 5' acaacccagg gattcggcat ccccttcaac ctcttc
240
tgccctggggg tttcagtggc tgcttccagc cacgtaccga tacagaagaa gctgcgttt
300
gaagacaccc tggagttgtt aggggttgat gcgaaatgg ctgagaaatc ctcccttcc
360
tcctccat cttcaccaac tgctgcaaca tctcaggagc agcaacttaa aaataagagt
420
atattaatct cttctgtggg ttccgggtcat catgcagacg ggctagccga atcttctac
479

<210> 6050
<211> 159
<212> PRT
<213> Homo sapiens

<400> 6050
Thr Gly Phe Ser Ser Pro Ser Pro Ser Ala Ala Ala Ala Ala Gln Glu
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20 25 30
Ala Lys Lys Arg Lys Leu Asn Ser Ser Ser Ser Ser Ser Asn Ser
35 40 45
Ser Asn Glu Arg Glu Asp Phe Asp Ser Thr Ser Ser Ser Ser Thr
50 55 60
Pro Pro Leu Gln Pro Arg Asp Ser Ala Ser Pro Ser Thr Ser Ser Phe
65 70 75 80
Cys Leu Gly Val Ser Val Ala Ala Ser Ser His Val Pro Ile Gln Lys
85 90 95
Lys Leu Arg Phe Glu Asp Thr Leu Glu Phe Val Gly Phe Asp Ala Lys
100 105 110
Met Ala Glu Glu Ser Ser Ser Ser Ser Ser Ser Pro Thr Ala
115 120 125
Ala Thr Ser Gln Glu Gln Gln Leu Lys Asn Lys Ser Ile Leu Ile Ser
130 135 140
Ser Val Gly Ser Val His His Ala Asp Gly Leu Ala Glu Ser Ser
145 150 155

<210> 6051
<211> 2404
<212> DNA
<213> Homo sapiens

<400> 6051
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120
ttacagcagc gtcgatttaa tggctcagac ggaggggtt catggtctcc tatggatgat
180
gaacttcttg cacagccaca gtttatgaaa ttatttagatt cactccgaga gcaatatacc
240
cgctaccagg aagttttag gcaacgtgc aagcgcacac agttagaaga gattcaacag
300
aaggtaatgc aggtggtaa ctggctagaa gggcctggat cagaacaact aagagcccag
360
tggggcattt gagactccat tagggcctcc caggccctac agcagaaaca cgaagagatt
420
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540
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gctcttgaat ttcatgggt tgcccaagat ttgtctcagc agttggatgg cttatttaggg
660
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720
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780
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840
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900
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1020
gtctgccta agactcacat cagattgggc gatgtgc tca aagaaacgaa agtttgctg
1080
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1200
acacttcctc gactgaacag agttagggaa caatttacaa tagcatctga agagagagta
1260
catagattgg aaatggctat tgcatc tcaaatgctg aaaagattt gcaggactgt
1320
ccagaagagc ctgaagctat taatgtgag gagcaattt atgaaattga agcagttggg
1380
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1440
tttggggatc caagtgcacat ggcttctact gcagaaaaca tca gatggaaacta
1500
gttaatctca aaaggcagca gctgagacat cctgaaatgg tgaccacaga gagctaata
1560

ctaccagcta cctacagatt tgcagttcat aatcccgcat gttgtcaaca tactacagca
 1620
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 1680
 cacatttctc tttacatgtt aacacettgc tactaccaag gcataattac ttaacatgct
 1740
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 1800
 tgctttaaag ctttacctga cctgtcagtt ttagacaaa caactgataa taagcttga
 1860
 atggtgctaa taagagttagg aattctctct attaaaaaga aaaaaaaaaag ttgcccttcc
 1920
 tccacagggt atttagtaaa tttagacagt agttaaactc ttgttagtag acagtggtgt
 1980
 cctcaaaatt ttactttgtt attcttcaga attgattatt ttattgtgt caatacagag
 2040
 aaagctttc agatcttgc tatatcatag tcattaaaag acctttcct atttgtattt
 2100
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 2160
 tagtagttac atcctatttc caaacatgag tgccttattt aaaagggcat tcttaggact
 2220
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 2280
 catatgttaag catgtgtata taataaataa gcatgttttta tcatgaaaaa ttattgtgaa
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 caac
 2404

<210> 6052
 <211> 518
 <212> PRT
 <213> Homo sapiens

<400> 6052

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								20			25			30	
Thr	Gly	His	Glu	Leu	Leu	Ser	Glu	Leu	Gln	Gln	Arg	Arg	Phe	Asn	Gly
								35			40			45	
Ser	Asp	Gly	Gly	Val	Ser	Trp	Ser	Pro	Met	Asp	Asp	Glu	Leu	Leu	Ala
								50			55			60	
Gln	Pro	Gln	Val	Met	Lys	Leu	Leu	Asp	Ser	Leu	Arg	Glu	Gln	Tyr	Thr
					65			70			75			80	
Arg	Tyr	Gln	Glu	Val	Cys	Arg	Gln	Arg	Ser	Lys	Arg	Thr	Gln	Leu	Glu
					85			90			95				
Glu	Ile	Gln	Gln	Lys	Val	Met	Gln	Val	Val	Asn	Trp	Leu	Glu	Gly	Pro
					100			105				110			
Gly	Ser	Glu	Gln	Leu	Arg	Ala	Gln	Trp	Gly	Ile	Gly	Asp	Ser	Ile	Arg
					115			120			125				
Ala	Ser	Gln	Ala	Leu	Gln	Gln	Lys	His	Glu	Glu	Ser	Gln	His		

130	135	140													
Ser	Glu	Trp	Phe	Ala	Val	Tyr	Val	Glu	Leu	Asn	Gln	Gln	Ile	Ala	Ala
145			150				155							160	
Leu	Leu	Asn	Ala	Gly	Asp	Glu	Glu	Asp	Leu	Val	Glu	Leu	Lys	Ser	Leu
			165				170							175	
Gln	Gln	Gln	Leu	Ser	Asp	Val	Cys	Tyr	Arg	Gln	Ala	Ser	Gln	Leu	Glu
			180				185							190	
Phe	Arg	Gln	Asn	Leu	Leu	Gln	Ala	Ala	Leu	Glu	Phe	His	Gly	Val	Ala
	195				200						205				
Gln	Asp	Leu	Ser	Gln	Gln	Leu	Asp	Gly	Leu	Leu	Gly	Met	Leu	Cys	Val
	210				215						220				
Asp	Val	Ala	Pro	Ala	Asp	Gly	Ala	Ser	Ile	Gln	Gln	Thr	Leu	Lys	Leu
	225				230				235					240	
Leu	Glu	Glu	Lys	Leu	Lys	Ser	Val	Asp	Val	Gly	Leu	Gln	Gly	Leu	Arg
	245				250				255					255	
Glu	Lys	Gly	Gln	Gly	Leu	Leu	Asp	Gln	Ile	Ser	Asn	Gln	Ala	Ser	Xaa
	260				265				270						
Gly	Pro	Met	Glu	Arg	Met	Xaa	Thr	Ile	Glu	Asn	Lys	Glu	Asn	Val	Asp
	275				280				285						
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	420				425				430						
Ala	Glu	Lys	Ile	Leu	Gln	Asp	Cys	Pro	Glu	Glu	Pro	Glu	Ala	Ile	Asn
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Asp	Arg	Leu	Thr	Val	Pro	Val	Val	Tyr	Pro	Asp	Gly	Thr	Glu	Gln	Tyr
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Phe	Gly	Ser	Pro	Ser	Asp	Met	Ala	Ser	Thr	Ala	Glu	Asn	Ile	Arg	Asp
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<212> DNA
<213> Homo sapiens

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<210> 6054
 <211> 382
 <212> PRT
 <213> Homo sapiens

<400> 6054
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 Met Ala Arg Gln Lys Gly Ile Phe Tyr Leu Thr Leu Phe Leu Ile Leu
 50 55 60
 Gly Thr Cys Thr Leu Phe Phe Ala Phe Glu Cys Arg Tyr Leu Ala Val
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 Gln Leu Ser Pro Ala Ile Pro Val Phe Ala Ala Met Leu Phe Leu Phe
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 100 105 110
 Pro Arg Ala Leu Pro Asp Glu Ala Ala Phe Ile Glu Met Glu Ile Glu
 115 120 125
 Ala Thr Asn Gly Ala Val Pro Gln Gly Gln Arg Pro Pro Pro Arg Ile
 130 135 140
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 145 150 155 160
 Thr Cys Lys Ile Phe Arg Pro Pro Arg Ala Ser His Cys Ser Ile Cys
 165 170 175
 Asp Asn Cys Val Glu Arg Phe Asp His His Cys Pro Trp Val Gly Asn
 180 185 190
 Cys Val Gly Lys Arg Asn Tyr Arg Tyr Phe Tyr Leu Phe Ile Leu Ser
 195 200 205
 Leu Ser Leu Leu Thr Ile Tyr Val Phe Ala Phe Asn Ile Val Tyr Val
 210 215 220
 Ala Leu Lys Ser Leu Lys Ile Gly Phe Leu Glu Thr Leu Lys Glu Thr
 225 230 235 240
 Pro Gly Thr Val Leu Glu Val Leu Ile Cys Phe Phe Thr Leu Trp Ser
 245 250 255
 Val Val Gly Leu Thr Gly Phe His Thr Phe Leu Val Ala Leu Asn Gln
 260 265 270
 Thr Thr Asn Glu Asp Ile Lys Gly Ser Trp Thr Gly Lys Asn Arg Val
 275 280 285
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 325 330 335
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<212> DNA
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<400> 6056
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 Leu Ala Val Ser Arg Thr Asp Gly Thr Val Glu Ile Tyr Asn Leu Ser
 50 55 60
 Ala Asn Tyr Phe Gln Glu Lys Phe Phe Pro Gly His Glu Ser Arg Ala
 65 70 75 80
 Thr Glu Ala Leu Cys Trp Ala Glu Gly Gln Arg Leu Phe Ser Ala Gly
 85 90 95
 Leu Asn Gly Glu Ile Met Glu Tyr Asp Leu Gln Ala Leu Asn Ile Lys
 100 105 110
 Tyr Ala Met Asp Ala Phe Gly Gly Pro Ile Trp Ser Met Ala Ala Ser
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 Pro Ser Gly Ser Gln Leu Leu Val Gly Cys Glu Asp Gly Ser Val Lys
 130 135 140
 Leu Phe Gln Ile Thr Pro Asp Lys Ile Gln Phe Glu Arg Asn Phe Asp

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His Ile Ala Ala Gly Ser Ile Asp Tyr Ile Ser Val Phe Asp Val Lys			
180	185	190	
Ser Gly Ser Ala Val His Lys Met Ile Val Asp Arg Gln Tyr Met Gly			
195	200	205	
Val Ser Lys Arg Lys Cys Ile Val Trp Gly Val Ala Phe Leu Ser Asp			
210	215	220	
Gly Thr Ile Ile Ser Val Asp Ser Ala Gly Lys Val Gln Phe Trp Asp			
225	230	235	240
Ser Ala Thr Gly Thr Leu Val Lys Ser His Leu Ile Ala Asn Ala Asp			
245	250	255	
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<210> 6057

<211> 3924

<212> DNA

<213> Homo sapiens

<400> 6057

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<211> 500
<212> PRT
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<400> 6058
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 35 40 45
 Val Asn Arg Arg Arg His Asn Ser Ser Asp Gly Phe Asp Ser Ala Ile
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 Gly Arg Pro Asn Gly Gly Asn Phe Gly Arg Lys Glu Lys Asn Gly Trp
 65 70 75 80
 Arg Thr His Gly Arg Asn Gly Thr Glu Asn Ile Asn His Arg Gly Gly
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 Tyr His Gly Gly Ser Ser Arg Ser Arg Ser Ser Ile Phe His Ala Gly
 100 105 110
 Lys Ser Gln Gly Leu His Glu Asn Asn Ile Pro Asp Asn Glu Thr Gly
 115 120 125
 Arg Lys Glu Asp Lys Arg Glu Arg Lys Gln Phe Glu Ala Glu Asp Phe
 130 135 140
 Pro Ser Leu Asn Pro Glu Tyr Glu Arg Glu Pro Asn His Asn Lys Ser
 145 150 155 160
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 165 170 175
 Thr Lys Lys Ile Ser Gln Ala Pro Leu Leu Glu Tyr Pro Pro Asn Pro
 180 185 190
 Lys Ser Arg Ala Pro Arg Met Leu Val Ile Lys Lys Gly Asn Thr Lys
 195 200 205
 Asp Leu Gln Leu Ser Gly Phe Pro Val Val Gly Asn Leu Pro Ser Gln
 210 215 220
 Pro Val Lys Asn Gly Thr Gly Pro Ser Val Tyr Lys Gly Leu Val Pro
 225 230 235 240
 Lys Pro Ala Ala Pro Pro Thr Lys Pro Thr Gln Trp Lys Ser Gln Thr
 245 250 255
 Lys Glu Asn Lys Val Gly Thr Ser Phe Pro His Glu Ser Thr Phe Gly
 260 265 270
 Val Gly Asn Phe Asn Ala Phe Lys Ser Thr Ala Lys Asn Phe Ser Pro
 275 280 285
 Ser Thr Asn Ser Val Lys Glu Cys Asn Arg Ser Asn Ser Ser Ser Pro
 290 295 300
 Val Asp Lys Leu Asn Gln Gln Pro Arg Leu Thr Lys Leu Thr Arg Met
 305 310 315 320
 Arg Thr Asp Lys Lys Ser Glu Phe Leu Lys Ala Leu Lys Arg Asp Arg
 325 330 335
 Val Glu Glu Glu His Glu Asp Glu Ser Arg Ala Gly Ser Glu Lys Asp
 340 345 350
 Asp Asp Ser Phe Asn Leu His Asn Ser Asn Ser Thr His Gln Glu Arg
 355 360 365
 Asp Ile Asn Arg Asn Phe Asp Glu Asn Glu Ile Pro Gln Glu Asn Gly
 370 375 380
 Asn Ala Ser Val Ile Ser Gln Gln Ile Ile Arg Ser Ser Thr Phe Pro
 385 390 395 400
 Gln Thr Asp Val Leu Ser Ser Ser Leu Glu Ala Glu His Arg Leu Leu
 405 410 415
 Lys Glu Met Gly Trp Gln Glu Asp Ser Glu Asn Asp Glu Thr Cys Ala

420	425	430
Pro Leu Thr Glu Asp Glu Met Arg Glu Phe Gln Val Ile Ser Glu Gln		
435	440	445
Leu Gln Lys Asn Gly Leu Arg Lys Asn Gly Ile Leu Lys Asn Gly Leu		
450	455	460
Ile Cys Asp Phe Lys Phe Gly Pro Trp Lys Asn Ser Thr Phe Lys Pro		
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Asp Asp Asp Val		
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<210> 6059

<211> 1442

<212> DNA

<213> Homo sapiens

<400> 6059

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1080

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 1320
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<210> 6060
 <211> 313
 <212> PRT
 <213> Homo sapiens

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 Ile Ser Tyr Thr Ile Thr Ile Phe Gly Asn Val Ser Ile Met Met Val
 35 40 45
 Cys Ile Leu Asp Pro Lys Leu His Thr Pro Met Tyr Phe Phe Leu Thr
 50 55 60
 Asn Leu Ser Ile Leu Asp Leu Cys Tyr Thr Thr Thr Val Pro His
 65 70 75 80
 Met Leu Val Asn Ile Gly Cys Asn Lys Lys Thr Ile Ser Tyr Ala Gly
 85 90 95
 Cys Val Ala His Leu Ile Ile Phe Leu Ala Leu Gly Ala Thr Glu Cys
 100 105 110
 Leu Leu Ala Val Met Ser Phe Asp Arg Tyr Val Ala Val Cys Arg
 115 120 125
 Pro Leu His Tyr Val Val Ile Met Asn Tyr Trp Phe Cys Leu Arg Met
 130 135 140
 Ala Ala Phe Ser Trp Leu Ile Gly Phe Gly Asn Ser Val Leu Gln Ser
 145 150 155 160
 Ser Leu Thr Leu Asn Met Pro Arg Cys Gly His Gln Glu Val Asp His
 165 170 175
 Phe Phe Cys Glu Val Pro Ala Leu Leu Lys Leu Ser Cys Ala Asp Thr
 180 185 190
 Lys Pro Ile Glu Ala Glu Leu Phe Phe Ser Val Leu Ile Leu Leu
 195 200 205
 Ile Pro Val Thr Leu Ile Leu Ile Ser Tyr Gly Phe Ile Ala Gln Ala
 210 215 220
 Val Leu Lys Ile Arg Ser Ala Glu Gly Arg Gln Lys Ala Phe Gly Thr
 225 230 235 240
 Cys Gly Ser His Met Ile Val Val Ser Leu Phe Tyr Gly Thr Ala Ile
 245 250 255
 Tyr Met Tyr Leu Gln Pro Pro Ser Ser Thr Ser Lys Asp Trp Gly Lys

260	265	270
Met Val Ser Leu Phe Tyr Gly Ile Ile Thr Ser Met	Leu Asn Ser Leu	
275	280	285
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Met Pro Arg Ile Phe Phe Cys Lys Lys		
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<210> 6061

<211> 1582

<212> DNA

<213> Homo sapiens

<400> 6061

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<210> 6062

<211> 226

<212> PRT

<213> Homo sapiens

<400> 6062
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 35 40 45
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 50 55 60
 Asp Asp Val Val Ile Thr Asn Pro His Ile Glu Ala Ile Leu Glu Asn
 65 70 75 80
 Glu Asp Trp Ile Glu Asp Ala Ser Gly Leu Met Ser His Cys Ile Ala
 85 90 95
 Ile Leu Lys Ile Cys His Thr Leu Thr Glu Lys Leu Val Ala Met Thr
 100 105 110
 Met Gly Ser Gly Ala Lys Met Lys Thr Ser Ala Ser Val Ser Asp Ile
 115 120 125
 Ile Val Val Ala Lys Arg Ile Ser Pro Arg Val Asp Asp Val Val Lys
 130 135 140
 Ser Met Tyr Pro Pro Leu Asp Pro Lys Leu Leu Asp Ala Arg Thr Thr
 145 150 155 160
 Ala Leu Leu Leu Ser Val Ser His Leu Val Leu Val Thr Arg Asn Ala
 165 170 175
 Cys His Leu Thr Gly Gly Leu Asp Trp Ile Asp Gln Ser Leu Ser Ala
 180 185 190
 Ala Glu Glu His Leu Glu Val Leu Arg Glu Ala Ala Leu Ala Ser Glu
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 Ala Ile
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<210> 6063

<211> 2286

<212> DNA
<213> Homo sapiens

<400> 6063

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<400> 6064
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 Phe Leu His Pro Asp Leu Gly Val Gly Gly Ala Glu Arg Leu Val Leu
 35 40 45
 Asp Ala Ala Leu Ala Leu Gln Ala Arg Gly Cys Ser Val Lys Ile Trp
 50 55 60
 Thr Ala His Tyr Asp Pro Gly His Cys Phe Ala Glu Ser Arg Glu Leu
 65 70 75 80
 Pro Val Arg Cys Ala Gly Asp Trp Leu Pro Arg Gly Leu Gly Trp Gly
 85 90 95
 Gly Arg Gly Ala Ala Val Cys Ala Tyr Val Arg Met Val Phe Leu Ala
 100 105 110
 Leu Tyr Val Leu Phe Leu Ala Asp Glu Glu Phe Asp Val Val Val Cys
 115 120 125
 Asp Gln Val Ser Ala Cys Ile Pro Val Phe Arg Leu Ala Arg Arg Arg
 130 135 140
 Lys Lys Ile Leu Phe Tyr Cys His Phe Pro Asp Leu Leu Leu Thr Lys

145	150	155	160
Arg	Asp	Ser	Phe
Leu	Lys	Arg	Leu
Tyr	Arg	Ala	Pro
Ile	Asp	Trp	Ile
165	170	175	
Glu	Glu	Tyr	Thr
Thr	Gly	Met	Ala
Cys	Ile	Leu	Val
Asn	Ser	Gln	
180	185	190	
Phe	Thr	Ala	Ala
Val	Phe	Lys	Glu
195	200	205	
Asp	Pro	Asp	Val
Leu	Tyr	Pro	Ser
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Val	Val	Asn	Val
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Val Pro Glu Xaa Ser Trp Met Thr

<210> 6065
<211> 2084
<212> DNA
<213> Homo sapiens

<400> 6065
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 1980
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 2040
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 2084

<210> 6066
 <211> 80
 <212> PRT
 <213> Homo sapiens

<400> 6066
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 20 25 30
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 35 40 45
 Ile Ile Glu Asp Trp Asp Leu Met Glu Arg Phe Met Glu Gln Val Val
 50 55 60
 Phe Lys Tyr Leu Arg Ala Glu Pro Glu Asp His Tyr Phe Leu Met Gly
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<210> 6067
 <211> 406

<212> DNA

<213> Homo sapiens

<400> 6067

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<210> 6068

<211> 117

<212> PRT

<213> Homo sapiens

<400> 6068

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				20				25					30		
Ser	Leu	Phe	Leu	Ser	Gly	Asn	Val	Ser	Ser	Arg	Arg	Met	Arg	Thr	Ala
	35					40				45					
Ser	Arg	Ser	Ser	Glu	Pro	Pro	Ala	Cys	Pro	Arg	His	Trp	Pro	Cys	Pro
	50				55				60						
Pro	Gly	Leu	Pro	Phe	Gly	Gln	Ala	Val	Ala	Arg	Ala	Ala	Pro	Cys	
65				70				75				80			
Pro	Ala	Tyr	Ser	His	Ser	Ala	Val	Gly	Arg	Pro	Pro	Leu	Pro	Arg	Lys
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Arg	Gly	Ala	Val	Ser	Ser	Gly	Arg	Leu	His	Arg	Arg	Gly	Thr	Gly	Ala
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<210> 6069

<211> 456

<212> DNA

<213> Homo sapiens

<400> 6069

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180

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<210> 6070
 <211> 148
 <212> PRT
 <213> Homo sapiens

<400> 6070
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 His Arg Tyr His Arg Lys Glu Asn Leu Glu Tyr Cys Ile Met Val Ile
 35 40 45
 Gly Val Pro Asn Val Gly Lys Ser Ser Leu Ile Asn Ser Leu Arg Arg
 50 55 60
 Gln His Leu Arg Lys Gly Lys Ala Thr Arg Val Gly Gly Glu Pro Gly
 65 70 75 80
 Ile Thr Arg Ala Val Met Ser Lys Ile Gln Val Glu Ser Ser Gly Ala
 85 90 95
 Arg Pro Ser Thr Leu Ser Arg Ala Leu Gln Ala Ser Gly Thr Cys Arg
 100 105 110
 Pro Leu Cys Gly Phe Arg Leu Leu Thr Thr Leu Pro Ser Pro Pro Leu
 115 120 125
 Ser Val Pro Ala Glu His Pro Arg Gly Arg His Cys Pro Ala Leu Ile
 130 135 140
 Pro Gln Ser Ser
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<210> 6071
 <211> 2633
 <212> DNA
 <213> Homo sapiens

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 <213> Homo sapiens

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 35 40 45
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 50 55 60
 Cys Lys Ala Ile Glu Arg Gly Thr Gly Asn Asp Asn Tyr Arg Thr Thr
 65 70 75 80
 Gly Ile Ala Thr Ile Glu Val Phe Leu Pro Pro Arg Leu Lys Lys Asp
 85 90 95
 Arg Lys Asn Leu Leu Glu Thr Arg Leu His Ile Thr Gly Arg Glu Leu
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 Arg Ser Lys Ile Ala Glu Thr Phe Gly Leu Gln Glu Asn Tyr Ile Lys
 115 120 125
 Ile Val Ile Asn Lys Lys Gln Leu Gln Leu Gly Lys Thr Leu Glu Glu
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 Ala Asp Pro Glu Ala Asp Pro Glu Glu Ala Thr Ala Ala Arg Val Ile
 85 90 95
 Asp Arg Phe Asp Glu Gly Glu Asp Gly Glu Gly Asp Phe Leu Val Val
 100 105 110
 Gly Ser Ile Arg Lys Leu Ala Ser Ala Ser Leu Leu Asp Thr Asp Lys
 115 120 125
 Arg Tyr Cys Gly Lys Thr Thr Ser Arg Lys Ala Trp Asn Glu Asp His
 130 135 140
 Trp Glu Gln Thr Leu Pro Gly Ser Ser Asp Glu Glu Ile Ser Asp Glu
 145 150 155 160
 Glu Gly Ser Gly Asp Glu Asp Ser Glu Gly Leu Gly Leu Glu Glu Tyr
 165 170 175
 Asp Glu Asp Asp Leu Gly Ala Ala Glu Gln Glu Cys Gly Asp Gln

180	185	190
Gly Glu Gln Glu Asp Glu Lys Pro Leu Cys Lys Asn Thr Gly Leu Gln		
195	200	205
Cys Pro Glu Tyr Gln		
210		

<210> 6079
<211> 651
<212> DNA
<213> Homo sapiens

<400> 6079
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120
catgcgcagc ggggccgtgg gtgtacgcgg cgccagcgcgg cagtccgtat ggccggcat
180
gggttaccgc tgctgccccct gctgtcgctc ctggtcggcg cgtggctcaa gcttagaaat
240
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300
ccagacagca gagatggtga agggcctgtg cgggaggcga cagtgaaacc ctttgcacatc
360
gacatatttc ctgtcaccaa caaagatttc agggattttg tcagggagaa aaagtatcg
420
acagaagctg agatgttgg atggagctt gtcttgagg actttgtctc tgatgagctg
480
agaaaacaag ccacccagcc aatgaagtct gtactctggc ggcttccagt ggaaaaggca
540
ttttggaggc agcctgcagg tcctggctct ggcatccgag agagactgga gcacccagtg
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651

<210> 6080
<211> 162
<212> PRT
<213> Homo sapiens

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20 25 30
Gln Leu Gln Gly Gly Arg Phe Leu Met Gly Thr Asn Ser Pro Asp Ser
35 40 45
Arg Asp Gly Glu Gly Pro Val Arg Glu Ala Thr Val Lys Pro Phe Ala
50 55 60
Ile Asp Ile Phe Pro Val Thr Asn Lys Asp Phe Arg Asp Phe Val Arg
65 70 75 80
Glu Lys Lys Tyr Arg Thr Glu Ala Glu Met Phe Gly Trp Ser Phe Val
85 90 95
Phe Glu Asp Phe Val Ser Asp Glu Leu Arg Asn Lys Ala Thr Gln Pro

100	105	110
Met Lys Ser Val Leu Trp Trp Leu Pro Val Glu Lys Ala Phe Trp Arg		
115	120	125
Gln Pro Ala Gly Pro Gly Ser Gly Ile Arg Glu Arg Leu Glu His Pro		
130	135	140
Val Leu His Val Ser Trp Asn Asp Ala Arg Ala Tyr Cys Ala Trp Arg		
145	150	155
Gly Lys		

<210> 6081
<211> 655
<212> DNA
<213> Homo sapiens

<400> 6081
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gaaggatggt tggatgttgtt ccagtcattta attagagttt ttccactgga agatccactg
120
ggaccagctg ttataacatt gttacttagat gaatgtccat tgcccactaa agatgcactc
180
cagaaattga ctgaaattct caatttaaat ggagaagtag cttgccaggaa ctcaagccat
240
cctgccaaac acaggaacac atctgcagtc cttaggctgct tggccgagaa actagcaggt
300
cctgcaagta taggtttact tagccaggaa atactggaa acttgctaca gtgtctgaag
360
ttacagtccc accccacagt catgctttt gcacttatcg cactggaaaa gtttgcacag
420
acaagtgaaa ataaattgac tatttctgaa tccagtattt gtgaccggct tgtcacattg
480
gagtccctggg ctaatgatcc tgattatctg aaacgtcaag ttggttctg tgcccactgg
540
agcttagaca atctctttt aaaagaaggt agacagctga cctatgagaa agtgaacttg
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655

<210> 6082
<211> 218
<212> PRT
<213> Homo sapiens

<400> 6082
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Ala Glu Thr Asp Glu Gly Trp Leu Asp Val Val Gln Ser Leu Ile Arg
20 25 30
Val Ile Pro Leu Glu Asp Pro Leu Gly Pro Ala Val Ile Thr Leu Leu
35 40 45
Leu Asp Glu Cys Pro Leu Pro Thr Lys Asp Ala Leu Gln Lys Leu Thr
50 55 60
Glu Ile Leu Asn Leu Asn Gly Glu Val Ala Cys Gln Asp Ser Ser His

70		75		80
Pro Ala Lys His Arg Asn Thr Ser Ala Val Leu Gly Cys Leu Ala Glu				
85		90		95
Lys Leu Ala Gly Pro Ala Ser Ile Gly Leu Leu Ser Pro Gly Ile Leu				
100		105		110
Glu Tyr Leu Leu Gln Cys Leu Lys Leu Gln Ser His Pro Thr Val Met				
115		120		125
Leu Phe Ala Leu Ile Ala Leu Glu Lys Phe Ala Gln Thr Ser Glu Asn				
130		135		140
Lys Leu Thr Ile Ser Glu Ser Ser Ile Ser Asp Arg Leu Val Thr Leu				
145		150		155
Glu Ser Trp Ala Asn Asp Pro Asp Tyr Leu Lys Arg Gln Val Gly Phe				
165		170		175
Cys Ala Gln Trp Ser Leu Asp Asn Leu Phe Leu Lys Glu Gly Arg Gln				
180		185		190
Leu Thr Tyr Glu Lys Val Asn Leu Ser Ser Ile Arg Ala Met Leu Asn				
195		200		205
Ser Asn Asp Val Ser Glu Tyr Leu Lys Ile				
210		215		

<210> 6083
<211> 358
<212> DNA
<213> *Homo sapiens*

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120  
aatgaaaggc taacagcttt acaagagaag ctgatcgatcg aaggccatct aacccaaagcg  
180  
gtagaagaaa caaagcttcc aaaagaaaaat cagacaagag caaaaagaatct tgatcccc  
240  
gatactctga gtccaaagcaa ggaaaaaaagc agtgacgaca ctacagacgc ccaaattggat  
300  
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358
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<210> 6084
<211> 101
<212> PRT
<213> *Homo sapiens*

<400> 6084
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 Ala Asp Asn Asp Phe Thr Asn Glu Arg Leu Thr Ala Leu Gln Glu Lys
 20 25 30
 Leu Ile Val Glu Gly His Leu Thr Lys Ala Val Glu Glu Thr Lys Leu
 35 40 45
 Ser Lys Glu Asn Gln Thr Arg Ala Lys Glu Ser Asp Phe Ser Asp Thr
 50 55 60
 Leu Ser Pro Ser Lys Glu Lys Ser Ser Asp Asp Thr Thr Asp Ala Gln

65 70 75 80
Met Asp Glu Gln Asp Leu Asn Glu Pro Leu Ala Lys Val Ser Leu Leu
 85 90 95
Lys Asp Asp Leu Gln
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<210> 6085
<211> 2307
<212> DNA
<213> Homo sapiens

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120
ggttacgaaa cagtgggttg ccctggtgat gtttttaca tcccaatgta ctggtgccat
180
cacatagagt cattactaaa tggggggatt accatcaactg tgaacttctg gtataagggg
240
gctccccaccc ctaagagaat tgaatatcct ctcaaagctc atcagaaaatg ggccataatg
300
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360
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420
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480
tattgcacgc tgcacttaat ggactggact cttgccatgg cccaggagtc aggtgtttgg
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600
tgtgcctctg cacccctctt ctctgcctcc cgccctaaatg cctgcattca gtgtgtggag
660
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720
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1020
ccttcctgtg agagaggatt agatagggtt ccaactgggc ctacaagctc aagccatata
1080
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1140
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1200
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1260

ctgtgtgtgc gtatcacact aggggtgcaa gcctctgggt gtgtgtgtgt gtgtgcgtgc
 1320
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 1380
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 1500
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 1680
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 2280
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 2307

<210> 6086
 <211> 84
 <212> PRT
 <213> Homo sapiens

<400> 6086
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 20 25 30
 Ile Thr Leu Gly Val Gln Ala Ser Gly Cys Val Cys Val Cys Ala Cys
 35 40 45
 Val Cys Val Cys Val Ser Val Cys Val Cys Val Cys Val His Thr Gly
 50 55 60
 Gln Pro Pro Tyr Leu Pro Arg Phe Ser Thr Ala Tyr Leu Phe Gln Trp
 65 70 75 80
 Asp Ser Thr Val

tgtacctgaa tcaaccttc agcctaggac gaagtctagg cccaaatcg agtattaatg
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<210> 6088
<211> 326
<212> PRT
<213> Homo sapiens

<400> 6088
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 20 25 30
Pro Gly Asp Leu Leu Ser Ala Arg Leu Leu Ser Gln Glu Lys Arg Ala
 35 40 45
Ala Glu Thr His Phe Gly Phe Glu Thr Val Ser Glu Glu Glu Lys Gly
 50 55 60
Gly Lys Val Tyr Gln Val Phe Glu Ser Val Ala Lys Lys Tyr Asp Val
 65 70 75 80
Met Asn Asp Met Met Ser Leu Gly Ile His Arg Val Trp Lys Asp Leu
 85 90 95
Leu Leu Trp Lys Met His Pro Leu Pro Gly Thr Gln Leu Leu Asp Met
 100 105 110
Ala Gly Gly Thr Gly Asp Ile Ala Phe Arg Phe Leu Asn Tyr Val Gln
 115 120 125
Ser Gln His Gln Arg Lys Gln Lys Arg Gln Leu Arg Ala Gln Gln Asn
 130 135 140
Leu Ser Trp Glu Glu Ile Ala Lys Glu Tyr Gln Asn Glu Glu Asp Ser
 145 150 155 160
Leu Gly Gly Ser Arg Val Val Val Cys Asp Ile Asn Lys Glu Met Leu
 165 170 175
Lys Val Gly Lys Gln Lys Ala Leu Ala Gln Gly Tyr Arg Ala Gly Leu
 180 185 190
Ala Trp Val Leu Gly Asp Ala Glu Glu Leu Pro Phe Asp Asp Asp Lys
 195 200 205
Phe Asp Ile Tyr Thr Ile Ala Phe Gly Ile Arg Asn Val Thr His Ile
 210 215 220
Asp Gln Ala Leu Gln Glu Ala His Arg Val Leu Lys Pro Gly Gly Arg
 225 230 235 240
Phe Leu Cys Leu Glu Phe Ser Gln Val Asn Asn Pro Leu Ile Ser Arg
 245 250 255
Leu Tyr Asp Leu Tyr Ser Phe Gln Val Ile Pro Val Leu Gly Glu Val
 260 265 270
Ile Ala Gly Asp Trp Lys Ser Tyr Gln Tyr Leu Val Glu Ser Ile Arg
 275 280 285
Arg Phe Pro Ser Gln Glu Glu Lys Asp Met Ile Glu Asp Ala Gly
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Phe His Lys Val Thr Tyr Glu Ser Leu Thr Ser Gly Ile Val Ala Ile
 305 310 315 320
His Ser Gly Phe Lys Leu

325

<210> 6089
<211> 4211
<212> DNA
<213> Homo sapiens

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120
tcccggagaag ttatagactt agaccccca gctgagactt cccaggagca ggaagacatt
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240
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360
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420
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540
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660
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720
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780
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840
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960
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1080
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1380

5269

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1560
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1620
tttcaaggca agCTGGATAG aaAGCAGGGa attccatGA aAGAGATACT aggacaACCA
1680
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1740
gagAGACCAC atAAATGTAa CGAGTGTGGG AAAAGCTTCa ttcAGAGTGC acATCTTATT
1800
caACATCAAa gaataCACAC tggggAGAAA ccattcAGGT gtGAGGAATG tggggAAAGC
1860
tacaACCAAC gcgtgcACCT aactcAGCAT cAGCgCgtCC acACAGGTGA gaAGCCCTAC
1920
acCTGTCCCT tatgtgggaa agcTTcAGA gtGAGGTCCC acCTTGTTCa gcatcAGAGC
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2040
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2100
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2280
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2700
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3000

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 4080
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 <210> 6090
 <211> 839
 <212> PRT
 <213> Homo sapiens

 <400> 6090
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 Glu Asp Cys Thr Trp Met Gln Glu Tyr Asn Pro Pro Thr Phe Glu Thr

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Arg	Glu	Ala	Leu	Ser	Gln	Leu	Arg	Val	Leu	Cys	Cys	Glu	Trp	Leu	Arg
65				70					75					80	
Pro	Glu	Leu	His	Thr	Lys	Glu	Gln	Ile	Leu	Glu	Leu	Leu	Val	Leu	Glu
								85		90				95	
Gln	Phe	Leu	Thr	Ile	Leu	Pro	Glu	Glu	Phe	Gln	Pro	Trp	Val	Arg	Glu
	100				105					110					
His	His	Pro	Glu	Ser	Gly	Glu	Glu	Ala	Val	Ala	Val	Ile	Glu	Asn	Ile
	115				120					125					
Gln	Arg	Glu	Leu	Glu	Glu	Arg	Arg	Gln	Gln	Ile	Val	Ala	Cys	Pro	Asp
	130				135					140					
Val	Leu	Pro	Arg	Lys	Met	Ala	Thr	Pro	Gly	Ala	Val	Gln	Glu	Ser	Cys
145					150				155				160		
Ser	Pro	His	Pro	Leu	Thr	Val	Asp	Thr	Gln	Pro	Glu	Gln	Ala	Pro	Gln
						165			170			175			
Lys	Pro	Arg	Leu	Leu	Glu	Glu	Asn	Ala	Leu	Pro	Val	Leu	Gln	Val	Pro
						180		185				190			
Ser	Leu	Pro	Leu	Lys	Asp	Ser	Gln	Glu	Leu	Thr	Ala	Ser	Leu	Leu	Ser
						195		200			205				
Thr	Gly	Ser	Gln	Lys	Leu	Val	Lys	Ile	Glu	Glu	Val	Ala	Asp	Val	Ala
						210		215			220				
Val	Ser	Phe	Ile	Leu	Glu	Glu	Trp	Gly	His	Leu	Asp	Gln	Ser	Gln	Lys
225					230				235				240		
Ser	Leu	Tyr	Arg	Asp	Asp	Arg	Lys	Glu	Asn	Tyr	Gly	Ser	Ile	Thr	Ser
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Ser	Val	Pro	Gln	Asp	Pro	Asp	Phe	Ala	Glu	Val	Ser	Asp	Leu	Lys	Gly
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						325		330			335				
Lys	Gln	Ser	Thr	His	Gly	Glu	Arg	Gly	His	Arg	Cys	Ser	Asp	Cys	Gly
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Lys	Phe	Phe	Leu	Gln	Ala	Ser	Asn	Phe	Ile	Gln	His	Arg	Arg	Ile	His
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Thr	Gly	Glu	Lys	Pro	Phe	Lys	Cys	Gly	Glu	Cys	Gly	Lys	Ser	Tyr	Asn
						370		375			380				
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						405		410			415				
Leu	Val	Gln	His	His	Ser	Val	His	Ser	Gly	Glu	Arg	Pro	Tyr	Gly	Cys
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Asn	Glu	Cys	Gly	Lys	Asn	Phe	Gly	Arg	His	Ser	His	Leu	Ile	Glu	His
						435		440			445				
Leu	Lys	Arg	His	Phe	Arg	Glu	Lys	Ser	Gln	Arg	Cys	Ser	Asp	Lys	Arg
						450		455			460				
Ser	Lys	Asn	Thr	Lys	Leu	Ser	Val	Lys	Lys	Ile	Ser	Glu	Tyr	Ser	

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Lys Gln Gly Ile Pro Met Lys Glu Ile Leu Gly Gln Pro Ser Ser Lys			
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Arg Met Asn Tyr Ser Glu Val Pro Tyr Val His Lys Lys Ser Ser Thr			
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Gly Glu Arg Pro His Lys Cys Asn Glu Cys Gly Lys Ser Phe Ile Gln			
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Ser Ala His Leu Ile Gln His Gln Arg Ile His Thr Gly Glu Lys Pro			
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Phe Arg Cys Glu Glu Cys Gly Lys Ser Tyr Asn Gln Arg Val His Leu			
580	585	590	
Thr Gln His Gln Arg Val His Thr Gly Glu Lys Pro Tyr Thr Cys Pro			
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Gly Phe Gly Arg Arg Ser His Leu Ala Gly His Leu Arg Leu His Ser			
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Arg Glu Lys Ser His Gln Cys Arg Glu Cys Gly Glu Ile Phe Phe Gln			
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675	680	685	
Glu Lys Asn Gly Ile Cys Glu Glu Ala Tyr Ser Trp Asn Leu Thr Val			
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Ile Cys Gly Lys Ala Phe Gly Tyr Ser Ser Asp Leu Ile Gln His Tyr			
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Arg Thr His Thr Ala Glu Lys Pro Tyr Gln Cys Asp Ile Cys Arg Glu			
740	745	750	
Asn Val Gly Gln Cys Ser His Thr Lys Gln His Gln Lys Ile Tyr Ser			
755	760	765	
Ser Thr Lys Ser His Gln Cys His Glu Cys Gly Arg Gly Phe Thr Leu			
770	775	780	
Lys Ser His Leu Asn Gln His Gln Arg Ile His Thr Gly Glu Lys Pro			
785	790	795	800
Phe Gln Cys Lys Glu Cys Gly Met Asn Phe Ser Trp Ser Cys Ser Leu			
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<212> DNA
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<400> 6091

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 <213> Homo sapiens

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Thr Pro Asn Trp Tyr Trp Val Leu Gly His Pro Asn Leu Ile Arg Asp			
35	40	45	
Val Thr Arg Gln Val Pro Ser Pro Pro Ser Gly Phe Arg Leu Pro Ser			
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Ser Arg His Glu Gly Pro Ser Pro Pro Arg Asp Leu Gly Thr Ser Gly			
65	70	75	80
Pro Ser Arg Ala Ala Ser His Lys Pro Ser Asn Glu Gln Arg Asp Ala			
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Gly Gln Gln Leu Gln Leu His Leu Leu Pro Ala Leu Lys Gly Ser Phe			
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<210> 6093

<211> 1998

<212> DNA

<213> Homo sapiens

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<210> 6094
 <211> 136
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Trp Asn Pro Lys Pro Leu Pro Arg Leu Gln Ala Pro Asp Gly Leu Leu
 50 55 60
 Ser Cys Asn Phe Leu Gly Glu Glu Thr Phe Ser Ser Phe Pro Phe Leu
 65 70 75 80
 Val His Pro Cys Thr Leu Val Leu Ser Gln Pro Leu Pro His Ile Val

85	90	95
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<210> 6095

<211> 441

<212> DNA

<213> Homo sapiens

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<210> 6096

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<212> PRT

<213> Homo sapiens

<400> 6096

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Thr Cys Ala Ile Cys Arg Val Gln Val Met Val Val Trp Gly Glu Cys
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Asn His Ser Phe His Asn Cys Cys Met Ser Leu Trp Val Lys Gln Asn
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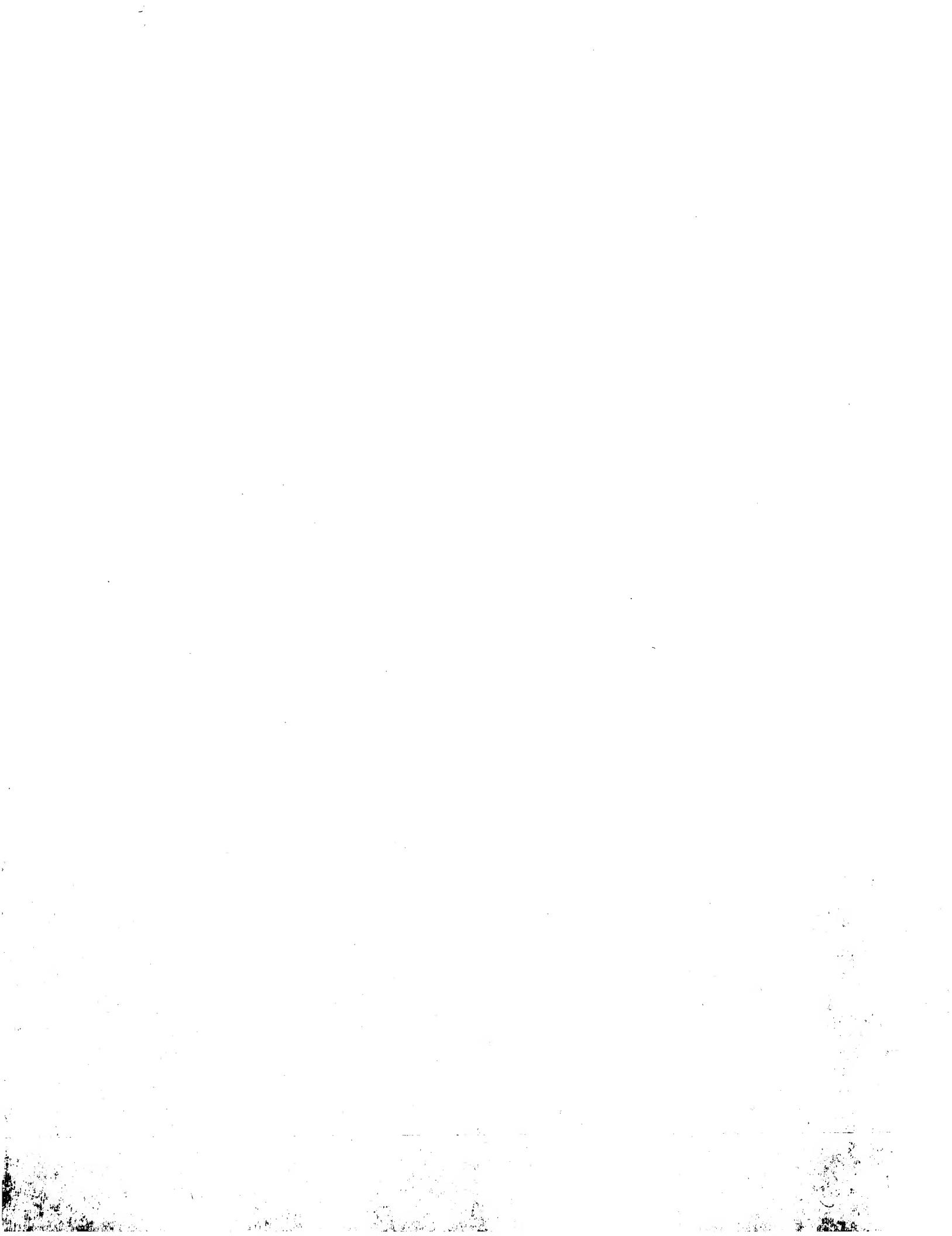
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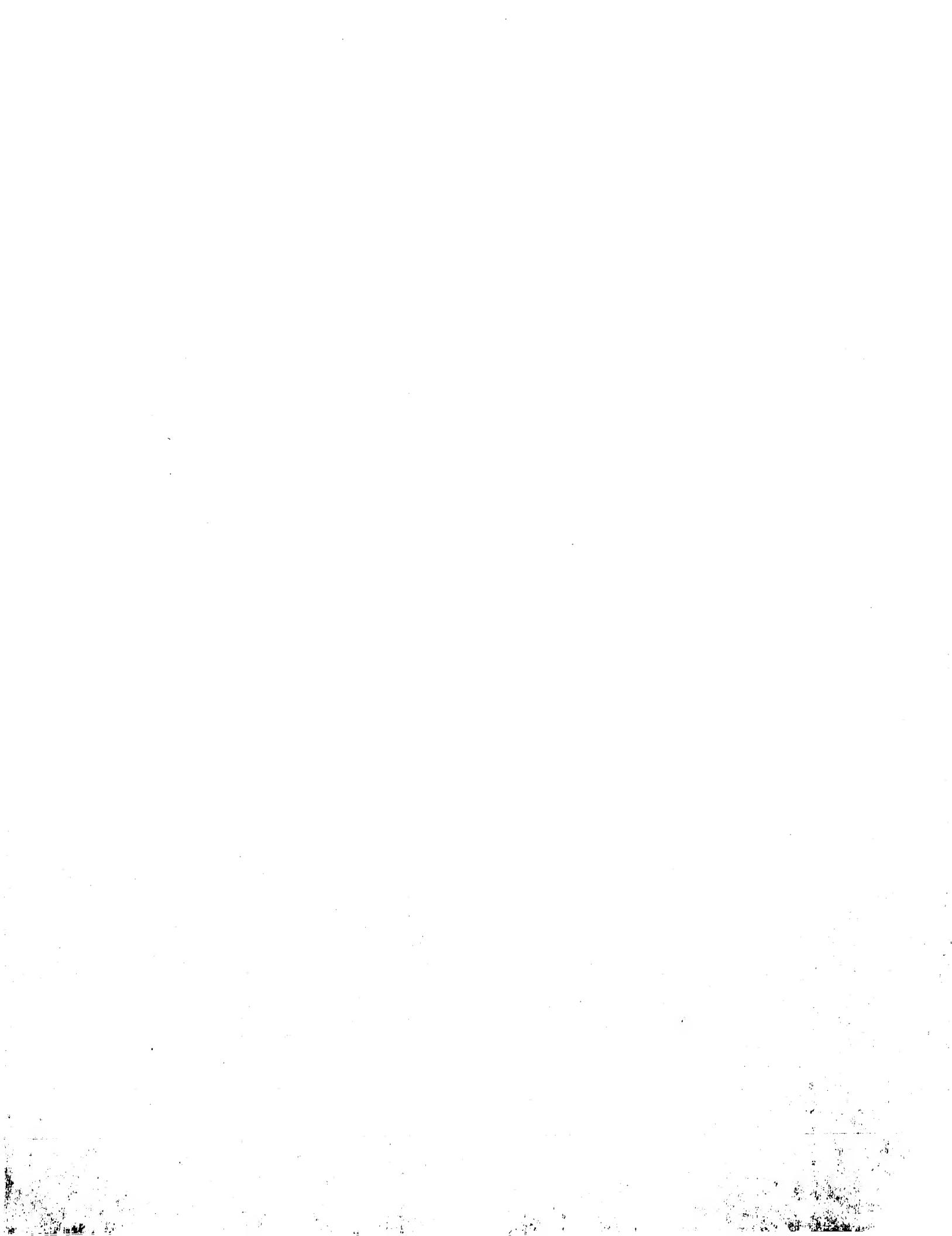
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 <212> PRT
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 Arg Cys Gln Glu Met Gly Ala Arg Ala Ala Lys Ala Val Glu Ser Gly
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 Ala Leu Glu Leu Ser Pro Ser Phe His Gln Lys Asn Trp Gln His Trp
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 His Gln Ile Pro Ala Tyr Leu Val Xaa Xaa Gly Pro Cys Ala Xaa Gly
 100 105 110
 Glu Glu Xaa Thr Cys Trp Val Val Gly Arg Ser Gly Ala Glu Ala Arg







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Arg	Ala	Ser	Asp
Ala	Gly	Gly	
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Ile	His	Ala	Gln
Gln	Leu	Leu	Lys
Leu	Leu	Lys	Arg
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Pro	Ser	Pro	Leu
Leu	Val	Thr	Met
Thr	Pro	Ala	Val
Pro	Ala	Val	Thr
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Asp	Gly	Glu	Pro
Glu	Pro	Asp	Gln
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Ser	Ser	Thr	Tyr
Tyr	Lys	Asp	Ser
Ser	Asn	Thr	Leu
His	Leu	Pro	Thr
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Phe	Ser	Pro	Val
Val	Arg	Phe	Ser
Arg	Phe	Ser	Asp
Asp	Gly	Ala	Ala
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Phe	Lys	Ala	His
Lys	Leu	Glu	Lys
Met	Gly	Asn	Asn
Asn	Ser	Ser	Ile
Ile	Lys	Gln	
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Leu	Gln	Gln	Glu
Cys	Glu	Gln	Leu
Gln	Leu	Gln	Lys
Leu	Gln	Met	Tyr
595	600	605	
Asp	Glu	Arg	Thr
Leu	Glu	Lys	Thr
Gln	Gln	Gln	Gln
His	Met	Leu	Tyr
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Gln	Glu	Gln	His
His	His	Ile	Leu
Gln	Gln	Gln	Ile
Ile	Gln	Asp	Ser
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Leu	Thr	His	Gln
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Arg	Ile	Gln	Pro
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Asn	His	Pro	Asn
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Met	Ile	Ala	Gln
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Ala	Ser	Ser	Gln
Gln	Phe	Gly	Leu
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Gln	Gln	Pro	Glu
Gln	Asn	Cys	Ser
Ser	Pro	Pro	Asn
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Lys	Gln	Leu	Ser
Ala	Asp	Ser	Ala
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Arg	Phe	Ser	Pro
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Phe	Ser	Asp	Gln
Ser	Arg	Gly	Ser
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Thr	Gly	Val	Gly
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Pro	Pro	Leu	Asp
Gln	Phe	Pro	Thr
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His	Tyr	Thr	Ser
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Tyr	Thr	Arg	His
Gln	Gln	Val	Pro
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Gly Gly His Glu His Pro Asp Leu Ser Asp Gly Ser Gln His Leu Asn		
1060	1065	1070
Ser Ser Cys Tyr Pro Ser Thr Cys Ile Thr Asp Ile Leu Leu Ser Tyr		
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Lys His Pro Glu Val Ser Phe Ser Met Glu Gln Ala Gly Val		
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<210> 6101

<211> 1447

<212> DNA

<213> Homo sapiens

<400> 6101
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420
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600
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 1447
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 <210> 6102
 <211> 123
 <212> PRT
 <213> Homo sapiens

<400> 6102
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 35 40 45
 Ile His Leu Gly Pro Arg Gln Ala Val Arg Pro Ser Val Arg Ala Glu
 50 55 60
 Ser Arg Arg Val Asp Gly Gly Arg Ser Pro Arg Glu Pro Asp Gly
 65 70 75 80
 Arg Gly Arg Ser Arg Gln Ala Arg Phe Ser Pro Tyr Pro Ile Pro Ala
 85 90 95
 Val Glu Pro Asp Leu Leu Arg Ser Val Leu Gln Gln Arg Leu Ile Ala
 100 105 110
 Leu Gly Gly Val Ile Ala Ala Arg Ile Ser Val
 115 120

<210> 6103
 <211> 309

<212> DNA
<213> Homo sapiens

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agaacacctatg cctttagtggaa gaagattggg cagtccccag tgagagtctt gaaggagatt
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309

<210> 6104
<211> 71
<212> PRT
<213> Homo sapiens

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Leu Asn Arg Leu Gln Tyr Ala Val Ile Ser Glu Ala Trp Arg Leu Val
35 40 45
Glu Glu Glu Ile Val Ser Pro Ser Asp Leu Asp Leu Val Met Ser Asp
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Gly Leu Gly Met Arg Tyr Ala
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<210> 6105
<211> 1846
<212> DNA
<213> Homo sapiens

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<210> 6106
<211> 405
<212> PRT
<213> Homo sapiens

<400> 6106

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															25
Asn	Ser	Thr	Gln	Pro	Ser	Thr	Ala	Gly	Met	Lys	Trp	Cys	Leu	Pro	Phe
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															40
His	Leu	Leu	Cys	Arg	Gly	Pro	Ser	Gly	Ser	Leu	Ser	Ala	Pro	Pro	Ala
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Ala	Ser	Val	Ile	Ser	Ala	Pro	Pro	Ser	Ser	Ser	Arg	His	Arg	Lys	
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Arg	Arg	Arg	Thr	Ser	Ser	Lys	Ser	Glu	Ala	Gly	Ala	Arg	Gly	Gly	
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Gln	Gly	Ser	Lys	Glu	Lys	Gly	Arg	Gly	Ser	Trp	Gly	Gly	Arg	His	His
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His	His	His	Pro	Leu	Pro	Ala	Ala	Gly	Phe	Lys	Lys	Gln	Gln	Arg	Lys
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Phe	Gln	Tyr	Gly	Asn	Tyr	Cys	Lys	Tyr	Tyr	Gly	Arg	Asn	Pro	Ser	
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Cys	Glu	Asp	Gly	Arg	Leu	Arg	Val	Leu	Lys	Pro	Glu	Trp	Phe	Gly	
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Arg	Asp	Val	Leu	Asp	Leu	Gly	Cys	Asn	Val	Gly	His	Leu	Thr	Leu	Ser
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Ile	Ala	Cys	Lys	Trp	Gly	Pro	Ser	Arg	Met	Val	Gly	Leu	Asp	Ile	Asp
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Ser	Arg	Leu	Ile	His	Ser	Ala	Arg	Gln	Asn	Ile	Arg	His	Tyr	Leu	Ser
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															200
Glu	Glu	Leu	Arg	Leu	Pro	Pro	Gln	Thr	Leu	Glu	Gly	Asp	Pro	Gly	Ala
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Glu	Gly	Glu	Gly	Thr	Thr	Thr	Val	Arg	Lys	Arg	Ser	Cys	Phe	Pro	
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Ala	Ser	Leu	Thr	Ala	Ser	Arg	Gly	Pro	Ile	Ala	Ala	Pro	Gln	Val	Pro
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Thr	Gly	Asn	Tyr	Val	Leu	Asp	Arg	Asp	Asp	Leu	Val	Glu	Ala	Gln	Thr
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Pro	Glu	Tyr	Asp	Val	Val	Leu	Cys	Leu	Ser	Leu	Thr	Lys	Trp	Val	His
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Arg	His	Leu	Arg	Pro	Gly	Gly	Ile	Leu	Val	Leu	Glu	Pro	Gln	Pro	Trp
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Ser	Ser	Tyr	Gly	Lys	Arg	Lys	Thr	Leu	Thr	Glu	Thr	Ile	Tyr	Lys	Asn
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Tyr	Tyr	Arg	Ile	Gln	Leu	Lys	Pro	Glu	Gln	Phe	Ser	Ser	Tyr	Leu	Thr
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Ser	Pro	Asp	Val	Gly	Phe	Ser	Ser	Tyr	Glu	Leu	Val	Ala	Thr	Pro	His
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Asn	Thr	Ser	Lys	Gly	Phe	Gln	Arg	Pro	Val	Tyr	Leu	Phe	His	Lys	Ala
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Arg	Ser	Pro	Ser	His											405

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<211> 896
<212> DNA
<213> *Homo sapiens*

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<210> 6108
<211> 124
<212> PRT
<213> Homo sapiens

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<400> 6108
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Pro Ala Cys Leu Leu Gly Arg Pro Trp Met Ser Arg Arg Cys Ser Arg
      35          40          45
Leu Gly Ser Thr Pro Pro Pro Ala Pro Ala Ser Pro Val Glu Ser Pro
      50          55          60
Arg Pro Ser Pro Ala Ser Ser Ala Phe Ser Ser Leu Pro Ser Asp Gly
      65          70          75          80
Trp Gly Ser Ser Val Gly Ser Gly Leu Pro Trp Pro Ala Thr Arg Trp

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Ala Pro Arg Ser Trp Leu Leu Pro Leu Ser Ala Thr		
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<210> 6109
<211> 2087
<212> DNA
<213> *Homo sapiens*

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<210> 6110
 <211> 323
 <212> PRT
 <213> Homo sapiens

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Pro	Gly	Ala	Ala	Ala	Gly	Leu	Thr	Leu	Leu	Cys	Ser	Leu	Val	Pro	Ile
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Cys	Val	Leu	Arg	Arg	Pro	Gly	Ala	Asn	His	Glu	Gly	Ser	Ala	Ser	Arg
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Gln	Lys	Ala	Leu	Ser	Leu	Val	Ser	Cys	Phe	Ala	Gly	Gly	Val	Phe	Leu
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Ala	Thr	Cys	Leu	Leu	Asp	Leu	Leu	Pro	Asp	Tyr	Leu	Ala	Ile	Asp	
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Glu	Ala	Leu	Ala	Leu	His	Val	Thr	Leu	Gln	Phe	Pro	Leu	Gln	Glu	
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Phe	Ile	Leu	Ala	Met	Gly	Phe	Phe	Leu	Val	Leu	Val	Met	Glu	Gln	Ile
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Thr	Leu	Ala	Tyr	Lys	Glu	Gln	Ser	Gly	Pro	Ser	Pro	Leu	Glu	Glu	Thr
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Arg	Ala	Leu	Leu	Gly	Thr	Val	Asn	Gly	Pro	Gln	His	Trp	His	Asp	

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Glu Gly Leu Ala Val Gly Leu Gln Arg Asp Arg Ala Arg Ala Met Glu			
195	200	205	
Leu Cys Leu Ala Leu Leu Leu His Lys Gly Ile Leu Ala Val Ser Leu			
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Ser Leu Arg Leu Leu Gln Ser His Leu Arg Ala Gln Val Val Ala Gly			
225	230	235	240
Cys Gly Ile Leu Phe Ser Cys Met Thr Pro Leu Gly Ile Gly Leu Gly			
245	250	255	
Ala Ala Leu Ala Glu Ser Ala Gly Pro Leu His Gln Leu Ala Gln Ser			
260	265	270	
Val Leu Glu Gly Met Ala Ala Gly Thr Phe Leu Tyr Ile Thr Phe Leu			
275	280	285	
Glu Ile Leu Pro Gln Glu Leu Ala Ser Ser Glu Gln Arg Ile Leu Lys			
290	295	300	
Val Ile Leu Leu Leu Ala Gly Phe Ala Leu Leu Thr Gly Leu Leu Phe			
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Ile Gln Ile			

<210> 6111
<211> 1706
<212> DNA
<213> Homo sapiens

<400> 6111
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 gcttgggtgtg tatgctttc attgtgtaaa attgctgttc ttttgcataat ttaagtgtatt
 1500
 gttttgttta ctgtaagttt gaaaataaaaa atgaagaaaa aaaattccaa tgactgtgt
 1560
 gtgggtggag actttatata ccaagatgtt tactttccctt tcccccttcc attttgagga
 1620
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 1680
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 1706

<210> 6112
 <211> 110
 <212> PRT
 <213> Homo sapiens

<400> 6112
 Met Ser Leu Phe Cys Phe Val Leu Phe Leu Arg Trp Ser Phe Pro Leu
 1 5 10 15
 Val Ala Gln Ala Gly Val Xaa Trp His Ser Leu Gly Ser Leu Gln Pro
 20 25 30
 Pro Leu Pro Gly Phe Lys Gln Phe Ser Cys Arg Ser Leu Pro Ser Ser
 35 40 45
 Trp Asp Tyr Arg His Ala Pro Pro Arg Gln Ala Asn Phe Cys Ile Phe
 50 55 60
 Ser Arg Asp Gly Val Ser Pro Cys Trp Pro Gly Trp Ser Gln Thr Pro
 65 70 75 80
 Asp Leu Arg Arg Ser Thr His Leu Ser Val Pro Lys Cys Trp Asp Tyr
 85 90 95
 Arg Arg Glu Pro Pro His Leu Ala Tyr Glu Trp Ser Phe Asn

100

105

110

<210> 6113
<211> 1095
<212> DNA
<213> Homo sapiens

<400> 6113
nnccggccgc aacgcateccc tgcctcgccg gacactgcgt gccccgcac gcagagaggc
60
ggtgacgcac tttacggccg cagcgtaagt gcgtgacgct cgtaagtggc ttca
120
acgtggccgc agcggaggca gggttatgtg tttgtgcctc ctttacagc caatatgaaa
180
aggccttagta agtggggtcg ggaggccggc gtggaggac ccacgtctgg aagttgtgc
240
agccaccacg acgctctct acggctacgg ctggctctct gctgtatgg ggggtggagc
300
atacgcgtag gccttggccc tatttcctgg tagaaccgag agttgaaagt ccctacggcg
360
atcatgttaa ccgcgcgggc tcattctgcg gaacgaagcc gggcagaggg tggggaaagac
420
taggcttagat tttcgtaagg aagcagcgtc tgagccaggt ttgaggccca atattttctt
480
tccgtggcca cgtcagact ggcgcagggtg agagctgaga atcgctccc agactcagtg
540
ttcctctccct gccttatgtat tcgtgtgtt tgacacgaag tgggtgtcg tttgtgtctc
600
atacgctgtt gtgtatgatc ccattctaat attgtgaggg taagtgcagg gaattttgac
660
tccattctgg atctactgaa tttaattctc tggatttga aagtagcactg tatgtttgca
720
ttaggcattt cgcatttagac ttaacgttag gtttgttagc caataacaca agaaaaggat
780
ataactccat agtgcgttaa cccagaacta atcatttggg ttaacagatt tgtgtatgt
840
ttctttgttag agttaaagaa agcaagtaaa cgcacgtacct gccataagcg gtataaaatc
900
caaaaaaagg ttgcagaaca tcatcgaaaa ttaagaaagg aggctaaaaa gcggggtcac
960
aagaagccta gaaaaagaccc aggagttcca aacagtgcgc ctttaagga ggctcttctt
1020
gaggaagctg agctaaggaa acagaggctt gaagaactaa aacagcagca gaaacttgac
1080
aggcagaagg aacta
1095

<210> 6114
<211> 87
<212> PRT
<213> Homo sapiens

<400> 6114
Met Cys Phe Phe Val Glu Leu Lys Lys Ala Ser Lys Arg Met Thr Cys

1	5	10	15
His Lys Arg Tyr Lys Ile Gln Lys Lys Val Arg Glu His His Arg Lys			
20	25	30	
Leu Arg Lys Glu Ala Lys Lys Arg Gly His Lys Lys Pro Arg Lys Asp			
35	40	45	
Pro Gly Val Pro Asn Ser Ala Pro Phe Lys Glu Ala Leu Leu Glu Glu			
50	55	60	
Ala Glu Leu Arg Lys Gln Arg Leu Glu Glu Leu Lys Gln Gln Gln Lys			
65	70	75	80
Leu Asp Arg Gln Lys Glu Leu			
85			

<210> 6115

<211> 411

<212> DNA

<213> Homo sapiens

<400> 6115

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120
actgtggcgt cccaggcgg tggagggagc aacttcgggg gcacgtcctc gttaatcccg
180
tggaggacac tgaccctgta ccccacccctc gagggccagaa gtcggttctt ttgggggaac
240
tgagggcga gagcactcgc cccctgact tgcaaagtgc gcgctttac ttggcctccg
300
ggattctgcg catggcgtgt ctccaggctg ctgatggca agacagatgt gccaggtcca
360
gaatgaacctt gagaagagtt ttagccatt cctgaatcac cttatactag t
411

<210> 6116

<211> 129

<212> PRT

<213> Homo sapiens

<400> 6116

Met Ala Thr Asn Ser Ser Gln Val His Ser Gly Pro Gly Thr Ser Val			
1	5	10	15
Leu Pro Ile Ser Ser Leu Glu Thr Arg His Ala Gln Asn Pro Gly Gly			
20	25	30	
Gln Val Lys Thr Pro Thr Leu Gln Val Arg Gly Ala Ser Ala Leu Ala			
35	40	45	
Pro Gln Phe Pro Gln Arg Asn Arg Leu Ala Ser Arg Val Gly Tyr			
50	55	60	
Arg Val Ser Val Leu His Gly Ile Tyr Glu Asp Val Pro Pro Lys Leu			
65	70	75	80
Leu Pro Pro Pro Trp Asp Ala Thr Val Arg Pro Ala Asp Glu Phe			
85	90	95	
Leu Pro Gln Arg Pro Arg Glu Gly Leu Arg Ala Ala Ala Ala Ala			
100	105	110	
Thr Gly Gly Glu Ala Ser Ala Gly Asn Leu Gly Pro Gly Gly Ala Arg			

Arg 115 120 125

20	25	30
Lys Lys Trp Asn Ala Val Ala Met	Trp Ser Trp Asp Val Glu Cys Asp	
35	40	45
Thr Cys Ala Ile Cys Arg Val Gln	Val Met Asp Ala Cys Leu Arg Cys	
50	55	60
Gln Ala Glu Asn Lys Gln Glu Asp Cys	Val Val Val Trp Gly Glu Cys	
65	70	75
Asn His Ser Phe His Asn Cys Cys Met	Ser Leu Trp Val Lys Gln Asn	
85	90	95
Asn Arg Cys Pro Leu Cys Gln Gln Asp	Trp Val Val Gln Arg Ile Gly	
100	105	110

Lys

<210> 6119
<211> 375
<212> DNA
<213> Homo sapiens

<400> 6119
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cccccacacc ccacacggac tgcacggaaa tatcacagta accatctctc agtcacagcg
120
tggccccaca gaactcatgc ctgcttgctt taaacccacc aatgaaaact ccccatggga
180
aacctgcttg gataatactt tggaccccaa taaatgcttt aatcccacaa gtccctgtc
240
tctgcctctc tcttgccctt acccactggt tgagcatgtg tgtcccaaac ggccctgcaa
300
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360
tgtgtcatgt tgtgc
375

<210> 6120
<211> 118
<212> PRT
<213> Homo sapiens

<400> 6120
Met Gly Lys Leu Asp Thr Ala Pro Trp Thr Cys Pro Thr Asp Pro His
1 5 10 15
Thr Pro His Gly Leu His Gly Asn Ile Thr Val Thr Ile Ser Gln Ser
20 25 30
Gln Arg Gly Pro Thr Glu Leu Met Pro Ala Cys Phe Lys Pro Thr Asn
35 40 45
Glu Asn Ser Pro Trp Glu Thr Cys Leu Asp Asn Thr Leu Asp Pro Asn
50 55 60
Lys Cys Phe Asn Pro Thr Ser Pro Leu Ser Leu Pro Leu Ser Cys Pro
65 70 75 80
Tyr Pro Leu Val Glu His Val Cys Pro Lys Arg Pro Cys Lys Val Cys
85 90 95
Cys Pro Val Leu Ser Gly Leu Cys Gln Gly Ile Lys Leu Leu Leu

Cys Asp Val Ser Cys Cys 115	100 105 110
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<210> 6121
<211> 1039
<212> DNA
<213> Homo sapiens

<400> 6121
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ttgttaaacat tgatttgaat gatgacaaca tttgcagtgt ttgttaactg ggaacagaca
120
aagaaacact ctccctctgc cacatttgtt tttagctaaa tattgagggg gtaccaaagt
180
ctgatctctt gcacaccaaa tcattaaggg gccataaaaga ctgctttgaa aaataccatt
240
taattgcaaa ccagggttgt cctcgatcta agcttc当地 aagtactttt gaagaagtta
300
aaaccatccc gagtaagaag ataaactgga ttgtgcagta tgcacaaaat aaggatctgg
360
attcagattc tgaatgttct aaaaagcccc agcatcatct gtttaatttc aggataagc
420
cagaagaaaa attactccca cagtttgagt cccaaatgtacc aaaatattct gcaaaatgg
480
tagatggaaag tgcagggtggc atctctaact gtacacaaaag aattttggag cagagggaaa
540
atacagactt tggactttct atgttacaag attcagggtgc cactttatgt cgtaacagt
600
tattgtggcc tcatagtcac aaccaggcac agaaaaaaaga agagacaatc tctagtcag
660
aggctaatgt ccagaccatg catccacatt acagcagaga ggaataagtt tttgaagagt
720
taactcacca agtgc当地 agaa aaagattctt tggcctcaca gctccatgtc cgccacgtt
780
ccatcgaaaca gcttctgaag aactgttctta agttaccatg tctgcaagta gggcgaacag
840
gaatgaagtc gcacctaccc ataaacaact gacctaaaca gacttacttc gtatgccctg
900
ccctttatgt gtctccaga catgcaaact ttgaagaagt ttgaagaaaat ttgtggccg
960
ttttttatgt gtcattaaat ttgc当地aaaca taaggcagta tttaacatct ttgtcaaata
1020
aagcagatca ttatactct
1039

<210> 6122
<211> 221
<212> PRT
<213> Homo sapiens

<400> 6122
Met Asn Glu Glu Glu Gln Phe Val Asn Ile Asp Leu Asn Asp Asp Asn

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1	5	10	15
Ile Cys Ser Val Cys Lys Leu Gly Thr Asp Lys Glu Thr Leu Ser Phe			
20	25	30	
Cys His Ile Cys Phe Glu Leu Asn Ile Glu Gly Val Pro Lys Ser Asp			
35	40	45	
Leu Leu His Thr Lys Ser Leu Arg Gly His Lys Asp Cys Phe Glu Lys			
50	55	60	
Tyr His Leu Ile Ala Asn Gln Gly Cys Pro Arg Ser Lys Leu Ser Lys			
65	70	75	80
Ser Thr Tyr Glu Glu Val Lys Thr Ile Leu Ser Lys Lys Ile Asn Trp			
85	90	95	
Ile Val Gln Tyr Ala Gln Asn Lys Asp Leu Asp Ser Asp Ser Glu Cys			
100	105	110	
Ser Lys Lys Pro Gln His His Leu Phe Asn Phe Arg His Lys Pro Glu			
115	120	125	
Glu Lys Leu Leu Pro Gln Phe Glu Ser Gln Val Pro Lys Tyr Ser Ala			
130	135	140	
Lys Trp Ile Asp Gly Ser Ala Gly Gly Ile Ser Asn Cys Thr Gln Arg			
145	150	155	160
Ile Leu Glu Gln Arg Glu Asn Thr Asp Phe Gly Leu Ser Met Leu Gln			
165	170	175	
Asp Ser Gly Ala Thr Leu Cys Arg Asn Ser Val Leu Trp Pro His Ser			
180	185	190	
His Asn Gln Ala Gln Lys Lys Glu Glu Thr Ile Ser Ser Pro Glu Ala			
195	200	205	
Asn Val Gln Thr Gln His Pro His Tyr Ser Arg Glu Glu			
210	215	220	

<210> 6123

<211> 900

<212> DNA

<213> Homo sapiens

<400> 6123

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 120
 gcgaaacaac aagagaaaaaa aaaggaagct gccctctgcc caaaacccac gtcgaggtcc
 180
 ccaaacctgg gacccttagg tctttctca cttagcgtgc ccaaccttct cctggcagga
 240
 aacaaggctc caggtctgct tcccccaaaa ggactataca tggcaaatga cttaaagctc
 300
 ctgagacacc atctccagat tcccatccac ttcccaagg atttcttgc tgtgatgctt
 360
 gaaaaaggaa gtttgtctgc catgcgttcc ctcaccgccc tgaacttggaa gcatccagag
 420
 atgctggaga aagcgtcccg ggagctgtgg atgcgctct ggtcaagggt gagtgtgggg
 480
 ctctggaaat cctctggag gaccttggat gactttctga cttccccag gcacgtttc
 540
 agggtcatga tcctgcccccc gccccggggga tctactgtcc tcccagtcaac acccctctcc
 600

ccgcacccgc ttcctgttgt cttctttct tcccagaatg aagacatcac cgagccgcag
 660
 agcattcctgg cggctgcaga gaaggctggt atgtctgcag aacaagccca gggacttctg
 720
 gaaaagatcg caacgccaa ggtgaagaac cagctcaagg agaccactga ggcagcctgc
 780
 agatacggag cttttggct gcccatcacc gtggcccatg tggatggcca aacccacatg
 840
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 900

<210> 6124

<211> 300

<212> PRT

<213> Homo sapiens

<400> 6124

Xaa	His	Ala	Cys	Ile	Pro	Gln	Leu	Leu	Gly	Arg	Leu	Arg	Arg	Glu	Asn
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Arg	Leu	Asn	Pro	Gly	Gly	Gly	Cys	Gly	Glu	Leu	Arg	Ser	His	His	
															20
Cys	Thr	Pro	Ala	Trp	Ala	Thr	Arg	Ala	Lys	Gln	Gln	Glu	Lys	Lys	
															35
Glu	Ala	Ala	Leu	Cys	Pro	Lys	Pro	Thr	Ser	Arg	Ser	Pro	Asn	Leu	Gly
															50
Pro	Leu	Gly	Leu	Phe	Ser	Leu	Ser	Val	Pro	Asn	Leu	Leu	Leu	Ala	Gly
															65
Asn	Lys	Pro	Pro	Gly	Leu	Leu	Pro	Arg	Lys	Gly	Leu	Tyr	Met	Ala	Asn
															85
Asp	Leu	Lys	Leu	Leu	Arg	His	His	Leu	Gln	Ile	Pro	Ile	His	Phe	Pro
															100
Lys	Asp	Phe	Leu	Ser	Val	Met	Leu	Glu	Lys	Gly	Ser	Leu	Ser	Ala	Met
															115
Arg	Phe	Leu	Thr	Ala	Val	Asn	Leu	Glu	His	Pro	Glu	Met	Leu	Glu	Lys
															130
Ala	Ser	Arg	Glu	Leu	Trp	Met	Arg	Val	Trp	Ser	Arg	Val	Ser	Val	Gly
															145
Leu	Trp	Glu	Ser	Ser	Gly	Arg	Thr	Leu	Asp	Asp	Phe	Leu	Thr	Phe	Pro
															165
Arg	His	Val	Phe	Arg	Val	Met	Ile	Leu	Pro	Pro	Gly	Gly	Ser	Thr	
															180
Val	Leu	Pro	Val	Thr	Pro	Leu	Ser	Pro	His	Arg	Leu	Pro	Ala	Val	Phe
															195
Ser	Ser	Ser	Gln	Asn	Glu	Asp	Ile	Thr	Glu	Pro	Gln	Ser	Ile	Leu	Ala
															210
Ala	Ala	Glu	Ala	Gly	Met	Ser	Ala	Glu	Gln	Ala	Gln	Gly	Leu	Leu	
															225
Glu	Lys	Ile	Ala	Thr	Pro	Lys	Val	Lys	Asn	Gln	Leu	Lys	Glu	Thr	Thr
															245
Glu	Ala	Ala	Cys	Arg	Tyr	Gly	Ala	Phe	Gly	Leu	Pro	Ile	Thr	Val	Ala
															260
His	Val	Asp	Gly	Gln	Thr	His	Met	Leu	Phe	Gly	Ser	Asp	Arg	Met	Glu
															275
Leu	Leu	Ala	His	Leu	Leu	Gly	Glu	Lys	Trp	Met	Gly				
															280
															285

290

295

300

<210> 6125
<211> 468
<212> DNA
<213> Homo sapiens

<400> 6125
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atgaaacagg acttagagga tgccagtaac aaggcggagg aggagagggc ccgcctggag
120
ggagaattga aggggctgca ggagcaaata gcagaaacca aagccccgt tatcacgcag
180
cagcatgate gggccaaga gcagagtac catgccttga tgctgcgtga gctccagaag
240
ctgctgcagg aggagaggac ccagcgcag gacttggagc ttaggttaga agagacccga
300
gaagccttgg caggacgagc atatgcagct gaacagatgg aaggatttga actgcagacc
360
aagcagctga cccgtgaggt ggaggagctg aaaagtgaac tgcaggccat tcgagatgag
420
aagaatcagc cagaccccg gctgcaagaa cttaggaag aggcccgc
468

<210> 6126
<211> 156
<212> PRT
<213> Homo sapiens

<400> 6126
Xaa Thr Val Thr Gln Glu Lys Ser Arg Met Glu Ala Ser Tyr Leu Ala
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Asp Lys Lys Lys Met Lys Gln Asp Leu Glu Asp Ala Ser Asn Lys Ala
20 25 30
Glu Glu Glu Arg Ala Arg Leu Glu Gly Glu Leu Lys Gly Leu Gln Glu
35 40 45
Gln Ile Ala Glu Thr Lys Ala Arg Leu Ile Thr Gln Gln His Asp Arg
50 55 60
Ala Gln Glu Gln Ser Asp His Ala Leu Met Leu Arg Glu Leu Gln Lys
65 70 75 80
Leu Leu Gln Glu Glu Arg Thr Gln Arg Gln Asp Leu Glu Leu Arg Leu
85 90 95
Glu Glu Thr Arg Glu Ala Leu Ala Gly Arg Ala Tyr Ala Ala Glu Gln
100 105 110
Met Glu Gly Phe Glu Leu Gln Thr Lys Gln Leu Thr Arg Glu Val Glu
115 120 125
Glu Leu Lys Ser Glu Leu Gln Ala Ile Arg Asp Glu Lys Asn Gln Pro
130 135 140
Asp Pro Arg Leu Gln Glu Leu Gln Glu Glu Ala Ala
145 150 155

<210> 6127
<211> 1900

<212> DNA

<213> Homo sapiens

<400> 6127

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120
cgggcaagag actccaatat ggtgagggcg gcagcagagc tggccctgag ctgcctgcct
180
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240
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300
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360
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420
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480
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540
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tacactgctc tacagccccca cctgcctgtt agccctcagt atctcactca cccagctcac
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cctgcccacc ccatgcctca catgccccgg cctgcccgtt tccctgtgcc cagctctgca
720
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780
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840
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900
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960
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1020
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1080
taccgtgtcg gaatgctggc actggagatg ctgggtcgcc gggcacacaa cgatcacccc
1140
aacaacttct cccgctcccc cccctacact gatgatgtca aatggttgtt ggggctggca
1200
gcaaagctgg gaggtaacta cgtgcaccag ttctgtgtgg gggcagccaa ggggggtgtg
1260
agcccgtttt tgctgcagga gatcgcatg gagacgctgc agcggctgag tcccgctcat
1320
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1380
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1440
gtgaatgcga tccggagtgc ccgcagcgcc ttctgcctga cggccatggg catgatgcag
1500

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 1800
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 1860
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 1900

<210> 6128

<211> 530

<212> PRT

<213> Homo sapiens

<400> 6128
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 1 5 10 15
 Thr Ile Leu Val Glu Cys Trp Asp Gly His Leu Thr Pro Pro Glu Val
 20 25 30
 Ala Ser Leu Ala Asp Arg Ala Ser Arg Ala Arg Asp Ser Asn Met Val
 35 40 45
 Arg Ala Ala Ala Glu Leu Ala Leu Ser Cys Leu Pro His Ala His Ala
 50 55 60
 Leu Asn Pro Asn Glu Ile Gln Arg Ala Leu Val Gln Cys Lys Glu Gln
 65 70 75 80
 Asp Asn Leu Met Leu Glu Lys Ala Cys Met Ala Val Glu Glu Ala Ala
 85 90 95
 Lys Gly Gly Gly Val Tyr Pro Glu Val Leu Phe Glu Val Ala His Gln
 100 105 110
 Trp Phe Trp Leu Tyr Glu Gln Thr Ala Gly Gly Ser Ser Thr Ala Arg
 115 120 125
 Glu Gly Ala Thr Ser Cys Ser Ala Ser Gly Ile Arg Ala Gly Gly Glu
 130 135 140
 Ala Gly Arg Gly Met Pro Glu Gly Arg Gly Gly Pro Gly Thr Glu Pro
 145 150 155 160
 Val Thr Val Ala Ala Ala Ala Val Thr Ala Ala Ala Thr Val Val Pro
 165 170 175
 Val Ile Ser Val Gly Ser Ser Leu Tyr Pro Gly Pro Gly Leu Gly His
 180 185 190
 Gly His Ser Pro Gly Leu His Pro Tyr Thr Ala Leu Gln Pro His Leu
 195 200 205
 Pro Cys Ser Pro Gln Tyr Leu Thr His Pro Ala His Pro Ala His Pro
 210 215 220
 Met Pro His Met Pro Arg Pro Ala Val Phe Pro Val Pro Ser Ser Ala
 225 230 235 240
 Tyr Pro Gln Gly Val His Pro Ala Phe Leu Gly Ala Gln Tyr Pro Tyr
 245 250 255
 Ser Val Thr Pro Pro Ser Leu Ala Ala Val Ser Phe Pro Val

260	265	270
Pro Ser Met Ala Pro Ile Thr Val His Pro Tyr His Thr Glu Pro Gly		
275	280	285
Leu Pro Leu Pro Thr Ser Val Ala Cys Glu Leu Trp Gly Gln Gly Thr		
290	295	300
Val Ser Ser Val His Pro Ala Ser Thr Phe Pro Ala Ile Gln Gly Ala		
305	310	315
Ser Leu Pro Ala Leu Thr Thr Gln Pro Ser Pro Leu Val Ser Gly Gly		
325	330	335
Phe Pro Pro Pro Glu Glu Glu Thr His Ser Gln Pro Val Asn Pro His		
340	345	350
Ser Leu His His Leu His Ala Ala Tyr Arg Val Gly Met Leu Ala Leu		
355	360	365
Glu Met Leu Gly Arg Arg Ala His Asn Asp His Pro Asn Asn Phe Ser		
370	375	380
Arg Ser Pro Pro Tyr Thr Asp Asp Val Lys Trp Leu Leu Gly Leu Ala		
385	390	395
Ala Lys Leu Gly Val Asn Tyr Val His Gln Phe Cys Val Gly Ala Ala		
405	410	415
Lys Gly Val Leu Ser Pro Phe Val Leu Gln Glu Ile Val Met Glu Thr		
420	425	430
Leu Gln Arg Leu Ser Pro Ala His Ala His Asn His Leu Arg Ala Pro		
435	440	445
Ala Phe His Gln Leu Val Gln Arg Cys Gln Gln Ala Tyr Met Gln Tyr		
450	455	460
Ile His His Arg Leu Ile His Leu Thr Pro Ala Asp Tyr Asp Asp Phe		
465	470	475
Val Asn Ala Ile Arg Ser Ala Arg Ser Ala Phe Cys Leu Thr Pro Met		
485	490	495
Gly Met Met Gln Phe Asn Asp Ile Leu Gln Asn Leu Lys Arg Ser Lys		
500	505	510
Gln Thr Lys Glu Leu Trp Gln Arg Val Ser Leu Glu Met Ala Thr Phe		
515	520	525
Ser Pro		
530		

<210> 6129
<211> 2012
<212> DNA
<213> Homo sapiens

<400> 6129
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<211> 364
<212> PRT
<213> Homo sapiens

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Thr Tyr Ile Phe Val Tyr Glu Asn Pro Ile Ser Leu Leu Cys Gly Ala
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Ile Ile Ile Trp Arg Phe Ala Gly Asn Phe Glu Arg Thr Val Gly Thr
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Val Arg His Cys Phe Phe Thr Val Ile Phe Ala Ile Phe Ser Ala Ile
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115 120 125
Val Glu Asp Ala Arg Gly Phe Thr Pro Val Ala Phe Ala Met Leu Gly
130 135 140
Val Thr Thr Val Arg Ser Arg Met Arg Arg Ala Leu Val Phe Gly Met
145 150 155 160
Val Val Pro Ser Val Leu Val Pro Trp Leu Leu Leu Gly Ala Ser Trp
165 170 175
Leu Ile Pro Gln Thr Ser Phe Leu Ser Asn Val Cys Gly Leu Ser Ile
180 185 190
Gly Leu Ala Tyr Gly Leu Thr Tyr Cys Tyr Ser Ile Asp Leu Ser Glu
195 200 205
Arg Val Ala Leu Lys Leu Asp Gln Thr Phe Pro Phe Ser Leu Met Arg
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Arg Ile Ser Val Phe Lys Tyr Val Ser Gly Ser Ser Ala Glu Arg Arg
225 230 235 240
Ala Ala Gln Ser Arg Lys Leu Asn Pro Val Pro Gly Ser Tyr Pro Thr
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Gln Ser Cys His Pro His Leu Ser Pro Ser His Pro Val Ser Gln Thr
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Gln His Ala Ser Gly Gln Lys Leu Ala Ser Trp Pro Ser Cys Thr Pro
275 280 285
Gly His Met Pro Thr Leu Pro Pro Tyr Gln Pro Ala Ser Gly Leu Cys
290 295 300
Tyr Val Gln Asn His Phe Gly Pro Asn Pro Thr Ser Ser Val Tyr
305 310 315 320
Pro Ala Ser Ala Gly Thr Ser Leu Gly Ile Gln Pro Pro Thr Pro Val
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<213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

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 65 70 75 80
 Pro Asn Ser Thr Ser Arg Pro Thr Leu Pro Val Lys Ser Leu Ala Gln
 85 90 95
 Arg Glu Ala Glu Tyr Ala Glu Ala Arg Lys Arg Ile Leu Gly Ser Ala
 100 105 110
 Ser Pro Glu Glu Gln Glu Lys Pro Ile Leu Asp Arg Ser Ser Ser
 115 120 125
 Asp Leu Leu Pro Phe Arg Pro Thr Arg Ile Ser Gln Pro Glu Asp Ser
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<400> 6133

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<400> 6134
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 Arg Gly Leu Val Pro Thr Asp Tyr Val Glu Ile Leu Pro Ser Asp Gly
 50 55 60
 Lys Asp Gln Phe Ser Cys Gly Asn Ser Val Ala Asp Gln Ala Phe Leu
 65 70 75 80
 Asp Ser Leu Ser Ala Ser Thr Ala Gln Ala Ser Ser Ser Ala Ala Ser
 85 90 95
 Asn Asn His Gln Val Gly Ser Gly Asn Asp Pro Trp Ser Ala Trp Ser
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 Ala Ser Lys Ser Gly Asn Trp Glu Ser Ser Glu Gly Trp Gly Ala Gln

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165	170	175
Tyr Phe Lys Asp Ser Glu Ser Ala Asp Ala Gly Gly Ala Gln Arg Gly		
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Gln Leu Thr Pro Thr Asn Thr Asn Arg Ser Val Asn His Arg Tyr Lys		
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His Phe Asp Trp Leu Tyr Glu Arg Leu Leu Val Lys Phe Gly Ser Ala		
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Phe Tyr Glu Thr Ile Ala Glu Lys Leu Arg Gln Ala Leu Ser Arg Phe			
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Pro Val Met			
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<210> 6135
<211> 526
<212> DNA
<213> Homo sapiens

<400> 6135
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aggccaaacc agggtatcag ccatctggag aatctgacaa agaaaacaaa gtacagggAAC
180
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accattctca accacagccct tttgctggaa cagctggaaag tttactctcc catctttga
360
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420
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526

<210> 6136
<211> 105
<212> PRT
<213> Homo sapiens

<400> 6136
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20 25 30
Ser Gln Pro Gln Pro Phe Ala Gly Thr Ala Gly Ser Leu Leu Ser His
35 40 45
Leu Leu Ser Leu Glu His Val Gly Ile Leu His Lys Asp Phe Glu Ser
50 55 60
Ile Leu Pro Thr Arg Lys Asn His Asn Met Ala Ser Arg Pro Leu Thr
65 70 75 80
Phe Thr Pro Gln Pro Tyr Val Thr Ser Pro Ala Ala Tyr Thr Asp Ala
85 90 95
Leu Val Lys Pro Ser Ala Ser Gln Tyr
100 105

<210> 6137
<211> 2073
<212> DNA
<213> Homo sapiens

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 2040
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 2073

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 <211> 550
 <212> PRT
 <213> Homo sapiens

<400> 6138
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 Gly Val Pro Asn Ser Ala Pro Phe Lys Glu Ala Leu Leu Arg Glu Ala
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 Glu Leu Arg Lys Gln Arg Leu Glu Glu Leu Lys Gln Gln Gln Lys Leu
 65 70 75 80
 Asp Arg Gln Lys Glu Leu Glu Lys Lys Arg Lys Leu Glu Thr Asn Pro
 85 90 95
 Asp Ile Lys Xaa Ile Lys Cys Gly Thr Xaa Met Glu Lys Glu Phe Gly
 100 105 110
 Leu Cys Lys Thr Glu Asn Lys Ala Lys Ser Gly Lys Gln Asn Ser Lys
 115 120 125
 Lys Leu Tyr Cys Gln Glu Leu Lys Lys Val Ile Glu Ala Ser Asp Val
 130 135 140
 Val Leu Glu Val Leu Asp Ala Arg Asp Pro Leu Gly Cys Arg Cys Pro
 145 150 155 160
 Gin Val Glu Glu Ala Ile Val Gln Ser Gly Gln Lys Lys Leu Val Leu
 165 170 175
 Ile Leu Asn Lys Ser Asp Leu Val Pro Lys Glu Asn Leu Glu Ser Trp
 180 185 190
 Leu Asn Tyr Leu Lys Glu Leu Pro Thr Val Val Phe Arg Ala Ser

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Thr Lys Pro Lys Asp Lys Gly Lys Ile Thr Lys Arg Val Lys Ala Lys		
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Leu Trp Lys Leu Leu Gly Gly Phe Gln Glu Thr Cys Ser Lys Ala Ile		
245	250	255
Arg Val Gly Val Ile Gly Phe Pro Asn Val Gly Lys Ser Ser Ile Ile		
260	265	270
Asn Ser Leu Lys Gln Glu Gln Met Cys Asn Val Gly Val Ser Met Gly		
275	280	285
Leu Thr Arg Ser Met Gln Val Val Pro Leu Asp Lys Gln Ile Thr Ile		
290	295	300
Ile Asp Ser Pro Ser Phe Ile Val Ser Pro Leu Asn Ser Ser Ser Ala		
305	310	315
Leu Ala Leu Arg Ser Pro Ala Ser Ile Glu Val Val Lys Pro Met Glu		
325	330	335
Ala Ala Ser Ala Ile Leu Ser Gln Ala Asp Ala Arg Gln Val Val Leu		
340	345	350
Lys Tyr Thr Val Pro Gly Tyr Arg Asn Ser Leu Glu Phe Phe Thr Val		
355	360	365
Leu Ala Gln Arg Arg Gly Met His Gln Lys Gly Gly Ile Pro Asn Val		
370	375	380
Glu Gly Ala Ala Lys Leu Leu Trp Ser Glu Trp Thr Gly Ala Ser Leu		
385	390	395
Ala Tyr Tyr Cys His Pro Pro Thr Ser Trp Thr Pro Pro Pro Tyr Phe		
405	410	415
Asn Glu Ser Ile Val Val Asp Met Lys Ser Gly Phe Asn Leu Glu Glu		
420	425	430
Leu Glu Lys Asn Asn Ala Gln Ser Ile Arg Ala Ile Lys Gly Pro His		
435	440	445
Leu Ala Asn Ser Ile Leu Phe Gln Ser Ser Gly Leu Thr Asn Gly Ile		
450	455	460
Ile Glu Glu Lys Asp Ile His Glu Glu Leu Pro Lys Arg Lys Glu Arg		
465	470	475
Lys Gln Glu Glu Arg Glu Asp Asp Lys Asp Ser Asp Gln Glu Thr Val		
485	490	495
Asp Glu Glu Val Asp Glu Asn Ser Ser Gly Met Phe Ala Ala Glu Glu		
500	505	510
Thr Gly Glu Ala Leu Ser Glu Glu Thr Thr Ala Gly Glu Gln Ser Thr		
515	520	525
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Phe Ser Thr Asp Tyr Val		
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<210> 6139

<211> 2249

<212> DNA

<213> Homo sapiens

<400> 6139

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<210> 6140
<211> 381
<212> PRT
<213> Homo sapiens

<400> 6140
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 35 40 45
 Arg Leu Phe Glu Asn Gln Leu Val Gly Pro Glu Ser Ile Ala His Ile
 50 55 60
 Gly Asp Val Met Phe Thr Gly Thr Ala Asp Gly Arg Val Val Lys Leu
 65 70 75 80
 Glu Asn Gly Glu Ile Glu Thr Ile Ala Arg Phe Xaa Phe Gly Pro Xaa
 85 90 95
 Cys Lys Thr Arg Asp Asp Glu Pro Val Cys Gly Arg Pro Leu Gly Ile
 100 105 110
 Arg Ala Gly Pro Asn Gly Thr Leu Phe Val Ala Asp Ala Tyr Lys Gly
 115 120 125
 Leu Phe Glu Val Asn Pro Trp Lys Arg Glu Val Lys Leu Leu Ser
 130 135 140
 Ser Glu Thr Pro Ile Glu Gly Lys Asn Met Ser Phe Val Asn Asp Leu
 145 150 155 160
 Thr Val Thr Gln Asp Gly Arg Lys Ile Tyr Phe Thr Asp Ser Ser Ser
 165 170 175
 Lys Trp Gln Arg Arg Asp Tyr Leu Leu Val Met Glu Gly Thr Asp
 180 185 190
 Asp Gly Arg Leu Leu Glu Tyr Asp Thr Val Thr Arg Glu Val Lys Val
 195 200 205
 Leu Leu Asp Gln Leu Arg Phe Pro Asn Gly Val Gln Leu Ser Pro Ala

210	215	220													
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225															240
Val	Tyr	Val	Ser	Gly	Leu	Met	Lys	Gly	Gly	Ala	Asp	Leu	Phe	Val	Glu
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Asn	Met	Pro	Gly	Phe	Pro	Asp	Asn	Ile	Arg	Pro	Ser	Ser	Ser	Gly	Gly
															255
Tyr	Trp	Val	Gly	Met	Ser	Thr	Ile	Arg	Pro	Asn	Pro	Gly	Phe	Ser	Met
															260
Leu	Asp	Phe	Leu	Ser	Glu	Arg	Pro	Trp	Ile	Lys	Arg	Met	Ile	Phe	Lys
															275
Gly	Ser	Cys	Ala	Gly	Cys	Asp	Leu	Leu	Phe	Ser	Gln	Glu	Thr	Val	Met
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Lys	Phe	Val	Pro	Arg	Tyr	Ser	Leu	Val	Leu	Glu	Leu	Ser	Asp	Ser	Gly
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Ala	Phe	Arg	Arg	Ser	Leu	His	Asp	Pro	Asp	Gly	Leu	Val	Ala	Thr	Tyr
															340
Ile	Ser	Glu	Val	His	Glu	His	Asp	Gly	His	Leu	Tyr	Leu	Gly	Ser	Phe
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<210> 6141

<211> 5651

<212> DNA

<213> Homo sapiens

<400> 6141

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gcagatattc cggtcagcag tgcagtcac ttccggcgate ttgaccccg ccagaccagg
4740
gaattccctt ttagagagtt cctcccaagt aggagccaga gtcttacaat gaccacacca
4800
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4860
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4980
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5040
gaaccagaga agagtggat agccacgaac ctgggttccg gagcagagtt catagtctg
5100
tgtacaatca accttgccaa tcttgacagt ttccggatgt tcaaggccca gagccagctg
5160
ctcccaggtt ggagccaggg ctggcagtg accacaccac ggagcgaaga acttgataaa
5220
gtggcgcct tggcaacgt gcagctcaa gttgcttgc gaga gctcat acagcccttg
5280
cttgagctcg ggggcaactgg gcggttccac ttccggctct ggtgtcactg gtcctcgct
5340
cagtgtctgc agcateccagt ttccagtg tggaaagtcc cgaggaccct ggtacttcac
5400
agcttcttg cctggcttga aaagctttaa ggtgggtat ctcgcaccc cctggggcgg
5460
gcacacgtcg ggtggcccg tgcagtcac tttagccaca tagactttgg catcttccat
5520
gctgtgtat ttgtctccca ggtcattcca agtcggctgc agccgctggc agtgcacca
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5640

ggccgtgtac a
5651

<210> 6142
<211> 513
<212> PRT
<213> Homo sapiens

<400> 6142
Met Pro Gly Leu Gly Arg Arg Ala Gln Trp Leu Cys Trp Trp Trp Gly
1 5 10 15
Leu Leu Cys Ser Cys Cys Gly Pro Pro Pro Leu Arg Pro Pro Leu Pro
20 25 30
Ala Ala Ala Ala Ala Ala Gly Gly Gln Leu Leu Gly Asp Gly Gly
35 40 45
Ser Pro Gly Arg Thr Glu Gln Pro Pro Pro Ser Pro Gln Ser Ser Ser
50 55 60
Gly Phe Leu Tyr Arg Arg Leu Lys Thr Gln Glu Lys Arg Glu Met Gln
65 70 75 80
Lys Glu Ile Leu Ser Val Leu Gly Leu Pro His Arg Pro Arg Pro Leu
85 90 95
His Gly Leu Gln Gln Pro Gln Pro Pro Ala Leu Arg Gln Gln Glu Glu
100 105 110
Gln Gln Gln Gln Gln Leu Pro Arg Gly Glu Pro Pro Pro Gly Arg
115 120 125
Leu Lys Ser Ala Pro Leu Phe Met Leu Asp Leu Tyr Asn Ala Leu Ser
130 135 140
Ala Asp Asn Asp Glu Asp Gly Ala Ser Glu Gly Glu Arg Gln Gln Ser
145 150 155 160
Trp Pro His Glu Ala Ala Ser Ser Ser Gln Arg Arg Gln Pro Pro Pro
165 170 175
Gly Ala Ala His Pro Leu Asn Arg Lys Ser Leu Leu Ala Pro Gly Ser
180 185 190
Gly Ser Gly Gly Ala Ser Pro Leu Thr Ser Ala Gln Asp Ser Ala Phe
195 200 205
Leu Asn Asp Ala Asp Met Val Met Ser Phe Val Asn Leu Val Glu Tyr
210 215 220
Asp Lys Glu Phe Ser Pro Arg Gln Arg His His Lys Glu Phe Lys Phe
225 230 235 240
Asn Leu Ser Gln Ile Pro Glu Gly Gly Val Val Thr Ala Ala Glu Phe
245 250 255
Arg Ile Tyr Lys Asp Cys Val Met Gly Ser Phe Lys Asn Gln Thr Phe
260 265 270
Leu Ile Ser Ile Tyr Gln Val Leu Gln Glu His Gln His Arg Asp Ser
275 280 285
Asp Leu Phe Leu Leu Asp Thr Arg Val Val Trp Ala Ser Glu Glu Gly
290 295 300
Trp Leu Glu Phe Asp Ile Thr Ala Thr Ser Asn Leu Trp Val Val Thr
305 310 315 320
Pro Gln His Asn Met Gly Leu Gln Leu Ser Val Val Thr Arg Asp Gly
325 330 335
Val His Val His Pro Arg Ala Ala Gly Leu Val Gly Arg Asp Gly Pro
340 345 350
Tyr Asp Lys Gln Pro Phe Met Val Ala Phe Phe Lys Val Ser Glu Val

355	360	365
His Val Arg Thr Thr Arg Ser Ala Ser Ser Arg	Arg Arg Gln Gln Ser	
370 375	380	
Arg Asn Arg Ser Thr Gln Ser Gln Asp Val Ala	Arg Val Ser Ser Ala	
385 390	395	400
Ser Asp Tyr Asn Ser Ser Glu Leu Lys Thr Ala	Cys Arg Lys His Glu	
405	410	415
Leu Tyr Val Ser Phe Gln Asp Leu Gly Trp Gln Asp Trp	Ile Ile Ala	
420	425	430
Pro Lys Gly Tyr Ala Ala Asn Tyr Cys Asp Gly	Glu Cys Ser Phe Pro	
435	440	445
Leu Asn Ala His Met Asn Ala Thr Asn His Ala	Ile Val Gln Thr Leu	
450	455	460
Val His Leu Met Asn Pro Glu Tyr Val Pro Lys	Pro Cys Cys Ala Pro	
465 470	475	480
Thr Lys Leu Asn Ala Ile Ser Val Leu Tyr Phe	Asn Asp Asn Ser Lys	
485	490	495
Ile Thr Leu Lys Tyr Arg Asn Met Val Val Arg Ala	Cys Gly Tyr	
500	505	510

Cys

<210> 6143
<211> 1137
<212> DNA
<213> Homo sapiens

<400> 6143
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ctcacccctcc accccagggc cctccctctc tggaactcag gcagcagaca agctgggtc
120
caccacacccg cccaaccttag gacagctggg cctgagctgg gcgggcaggg gattccatct
180
cctgggtgcgc cctgccagag gggagaggct ggaggcggcg ggaatgctgt tctccccag
240
gagtcaagtcc tcagggcttc tgccgtggga cgtggggcccg agggacctgg ggcactgacc
300
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360
cgacacagtt ctgggtgcgg gcctagcgga gacagaggac cagaggtcca gttccctgg
420
ggctgagctt ttctcagact tcggaggaaa aatgtcccag cccagcaggc agtgccgggg
480
caggccagtt gtgtcagagg cgtcaaagct ctttcgggtg gatgtggta cgggtgcgggg
540
gctccaggat cgacagcggg atgctcaccc tgccgtgggg ggctgacgtg cgctgtgcg
600
ccagggtcccc agggccctgc tggtctcgcg atgtcctgca caggcggcag ggggtaccgg
660
gatccacagg caccggaaac aggccgggt tgacacggta acagttacacg cattcatggt
720
cttcctccac gccgctgcca ctgctctcac gcaggcctgg caactgggt tcaggatggc
780

tgccatataca ctcctccttg ttgggttccc gaaactcctg cagcttggag aagaaggcct
 840
 caggctggct ggtgatggaa gagctggtgt ccagagaccc tgcataccca
 900
 ggtatggcct gaggcgccag ctcctctcag gaactgcaga ctcctcagag aaggtcaccc
 960
 tgggcttggaa cagcttgcctc tggtagccca ggatggacct cggggctgt gcctccctgg
 1020
 gtccctggatc acccagccctc cttggggct ctgggtccct caggctttag gtgcggcagcg
 1080
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 1137

<210> 6144
 <211> 141
 <212> PRT
 <213> Homo sapiens

<400> 6144
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 Ser Thr Glu Ser Leu Thr Leu His Pro Arg Val Leu Pro Leu Trp Asn
 20 25 30
 Ser Gly Ser Arg Gln Ala Trp Val His Pro Pro Ala Gln Pro Arg Thr
 35 40 45
 Ala Gly Pro Glu Leu Gly Gly Ile Pro Ser Pro Gly Cys Ala
 50 55 60
 Cys Gln Arg Gly Glu Ala Gly Gly Gly Asn Ala Val Leu Pro Gln
 65 70 75 80
 Glu Ser Val Leu Arg Ala Ser Ala Val Gly Arg Gly Ala Glu Gly Pro
 85 90 95
 Gly Ala Leu Thr Arg Ser Gly Ser Gly Ala Ala Ser Ala Leu Val Arg
 100 105 110
 Pro Gly Glu Lys Gly Cys Trp Cys Arg Thr Ala Ser Gly Ala Gly Pro
 115 120 125
 Ser Gly Asp Arg Gly Pro Glu Val Gln Val Pro Gly Gly
 130 135 140

<210> 6145
 <211> 766
 <212> DNA
 <213> Homo sapiens

<400> 6145
 nacaagggtc cagcctccctc tcctgggttc cagcttgcctc cctctggctc acctgttcct
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 agagcaatgt ctccccagca gcagcagcgg caggcagcag tgcacccccc agaggccca
 120
 cagcagcaag tgaaggcagcc ttgtcagcca cccccctgtta aatgtcaaga gacatgtca
 180
 cccaaaacca aggtccatg tgctccccag gtcaagaagc aatgcccacc gaaagacacc
 240
 atcattccag cccagcagaa gtgtccctca gcccagcaag cctccaagag caaacagaag
 300

taaggatgga ctggatatta ccatcatcca ccatacctggc taccagatgg aacccctctct
 360
 tcttccttct cctcttcctt ccagctcttg agcctaccct cctctcacat ctccctcctgc
 420
 ccaagatgta aggaaggattt gtaaggattt ctccccatcg tacccttccc cacacatacc
 480
 accttggctt cttctatatac ccacccegt gctctccag gtgggtgtga gagagaccc
 540
 attctctgca ggctccageg tggccacagc taaggccat ccatttccca aagtgaggaa
 600
 agtgtctggg cttcttctgg ggttccaccc tgacaagtag ggtcacagag gctggtgac
 660
 agtttctgcc tcattcctct ccatgatgcc ccctgtctg ggcttctctc ctgtttccc
 720
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 766

<210> 6146
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 6146
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 20 25 30
 Ala Val Pro Thr Pro Glu Ala Gln Gln Gln Val Lys Gln Pro Cys
 35 40 45
 Gln Pro Pro Pro Val Lys Cys Gln Glu Thr Cys Ala Pro Lys Thr Lys
 50 55 60
 Asp Pro Cys Ala Pro Gln Val Lys Lys Gln Cys Pro Pro Lys Asp Thr
 65 70 75 80
 Ile Ile Pro Ala Gln Gln Lys Cys Pro Ser Ala Gln Gln Ala Ser Lys
 85 90 95
 Ser Lys Gln Lys
 100

<210> 6147
 <211> 1852
 <212> DNA
 <213> Homo sapiens

<400> 6147
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 agttcatatt tacactatca taaaattatg gccgagaagt taaatattct aaatgtgtca
 120
 acatagttct ctgtaaaact gacttacttt ccaaataataat tttgaaataa aacaataaa
 180
 aaatgttttc tgtttttagg aatggtgaa agcagcagac ataattggag tgggttggat
 240
 aagcaaagtg atattcaaaa tttaaatgaa gagagaatct tagctttaca gctttgtgg
 300

tggataaaaga aaggaacgga ttagacgtg gggccat^{ttt} tgaactccct tgtacaagaa
360
ggggatggg aaagagctgc tgctgtggca ttgttcaact tggatattcg ccgagcaatc
420
caaatcctga atgaaggggc atcttctgaa aaaggagatc tgaatctcaa tgtggtagca
480
atggctttat cgggttatac ggatgagaag aactccctt ggagagaaaat gtgttagcaca
540
ctgcgattac agctaaataa cccgtat^{ttt} tgcgtcatgt ttgcatttc gacaagtgaa
600
acaggatctt acgtggagt tttgtatgaa aacaaagttg cagtgatcga cagagtggca
660
tttgcttgta aattccttag tgatactcag ttaaatagat acatcgaaaa gttgaccaat
720
gaaatgaaag aggctggaaa ttggaaagga attttgc^{ttt} caggccttac taaagatgga
780
gtggacttaa tggagagttt tggtataga actggagatg ttcaaacagc aagttactgt
840
atgttacagg gttcac^{ttt} agatgttctt aaagatgaaa gggttcagta ctggatttag
900
aattatagaa atttattaga tgcctggagg tttggcata aacgagctga atttgatatt
960
cacaggagta agttggatcc cagttccaag ccttagcac aagttttgt gagttcaat
1020
ttctgtggca agtcaatctc ctacagctgt tcagctgtgc ctcatcaggg cagaggttt
1080
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1200
tgtcctggag gaaccaaatac agataaaaaa gtggacttga gcaaggacaa aaaattagcc
1260
caatttaaca actggtttac atgggtcat aattgcaggc acgggtggaca tgctggacat
1320
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1380
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1500
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1560
tcagatcagc agttttgatg tttgagtgat ttgtatgc ttcacagaga caaatgtgc
1620
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1680
gaaaaacttt ctaagtttg gttgaaatta tgaacactct agaagcagaa tttctggaaag
1740
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1852

<210> 6148

<211> 410
<212> PRT
<213> Homo sapiens

<400> 6148
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Asp Ile Gln Asn Leu Asn Glu Glu Arg Ile Leu Ala Leu Gln Leu Cys
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Gly Trp Ile Lys Lys Gly Thr Asp Val Asp Val Gly Pro Phe Leu Asn
35 40 45
Ser Leu Val Gln Glu Gly Glu Trp Glu Arg Ala Ala Ala Val Ala Leu
50 55 60
Phe Asn Leu Asp Ile Arg Arg Ala Ile Gln Ile Leu Asn Glu Gly Ala
65 70 75 80
Ser Ser Glu Lys Gly Asp Leu Asn Leu Asn Val Val Ala Met Ala Leu
85 90 95
Ser Gly Tyr Thr Asp Glu Lys Asn Ser Leu Trp Arg Glu Met Cys Ser
100 105 110
Thr Leu Arg Leu Gln Leu Asn Asn Pro Tyr Leu Cys Val Met Phe Ala
115 120 125
Phe Leu Thr Ser Glu Thr Gly Ser Tyr Asp Gly Val Leu Tyr Glu Asn
130 135 140
Lys Val Ala Val Arg Asp Arg Val Ala Phe Ala Cys Lys Phe Leu Ser
145 150 155 160
Asp Thr Gln Leu Asn Arg Tyr Ile Glu Lys Leu Thr Asn Glu Met Lys
165 170 175
Glu Ala Gly Asn Leu Glu Gly Ile Leu Leu Thr Gly Leu Thr Lys Asp
180 185 190
Gly Val Asp Leu Met Glu Ser Tyr Val Asp Arg Thr Gly Asp Val Gln
195 200 205
Thr Ala Ser Tyr Cys Met Leu Gln Gly Ser Pro Leu Asp Val Leu Lys
210 215 220
Asp Glu Arg Val Gln Tyr Trp Ile Glu Asn Tyr Arg Asn Leu Leu Asp
225 230 235 240
Ala Trp Arg Phe Trp His Lys Arg Ala Glu Phe Asp Ile His Arg Ser
245 250 255
Lys Leu Asp Pro Ser Ser Lys Pro Leu Ala Gln Val Phe Val Ser Cys
260 265 270
Asn Phe Cys Gly Lys Ser Ile Ser Tyr Ser Cys Ser Ala Val Pro His
275 280 285
Gln Gly Arg Gly Phe Ser Gln Tyr Gly Val Ser Gly Ser Pro Thr Lys
290 295 300
Ser Lys Val Thr Ser Cys Pro Gly Cys Arg Lys Pro Leu Pro Arg Cys
305 310 315 320
Ala Leu Cys Leu Ile Asn Met Gly Thr Pro Val Ser Ser Cys Pro Gly
325 330 335
Gly Thr Lys Ser Asp Glu Lys Val Asp Leu Ser Lys Asp Lys Leu
340 345 350
Ala Gln Phe Asn Asn Trp Phe Thr Trp Cys His Asn Cys Arg His Gly
355 360 365
Gly His Ala Gly His Met Leu Ser Trp Phe Arg Asp His Ala Glu Cys
370 375 380
Pro Val Ser Ala Cys Thr Cys Lys Cys Met Gln Leu Asp Thr Thr Gly

385 390 395 400
Asn Leu Val Pro Ala Glu Thr Val Gln Pro
 405 410

<210> 6149
<211> 1949
<212> DNA
<213> Homo sapiens

<400> 6149
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120
agacagtccct cgtagcact gactttcage tatggaatcg cagacggttt atgatgaagc
180
gccggccgtg taaatgaaga tcgggtgagg agcaggacga tgcccaaggg tgggtgcct
240
aaagcaccac agcaggaaga gctccccc agcagcgaca tggtgagaa gcagactgg
300
aaaaaggata aagataaagt ttctctaacc aagaccccaa aactggagcg tggcgatggc
360
ggaaaggagg tgagggagcg agccagcaag cgaaagctgc ctttcaccgc gggcgccaat
420
ggggagcaga aggactcgga cacagagaag cagggccctg agcggaaagag gattaagaag
480
gagccgtca cccggaaggc cgggctgctg tttggcatgg ggctgtctgg aatccgagcc
540
ggctacccccc tctccgagcg ccagcaggtg gcccttcata tgcagatgac ggccgaggag
600
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660
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720
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780
atcagcgagg gggcagacgt caacgtcaag gacttcgcag gctggacggc gctgcacgag
840
gcctgttaacc ggggctacta cgacgtcgcg aagcagctgc tggctgcagg tgccggagg
900
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960
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1020
gagacgcccgc tgaaagtggc caactccccc acgatggtga acctcctgtt aggcaaaggc
1080
acttacactt ccagcgagga gagctcgacg gagagctcaag aagaggaaga cgcaccatcc
1140
ttcgcacctt ccagttcagt cgacggcaac aacacggact ccgagttcga aaaaggcctc
1200
aagcacaagg ccaagaaccc agagccacag aaggccacgg ccccgtaa ggacgagtat
1260
gagtttgatg aggacgacga gcaggacagg gttcctccgg tggacgacaa gcacctattg
1320

aaaaaggact acagaaaaga aacgaaatcc aatagttta tctctatacc caaaatggag
1380
gttaaaaaggttt acactaaaaaa taacacgatt gcaccaaaga aagcgtccca tcgtatcctg
1440
tcagacacgt cggacgagga ggacgcgagt gtcacccgtgg ggacaggaga gaagctgaga
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1560
cagaaggaaa aaaataaagt gaaaaagaag cgaaagaaag aaacaaaagg cagagaggtt
1620
cgcttcggaa agcggagcna tagttctgct cctcggagtc ggagagcgag tcctcagaga
1680
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1740
tgctgaagga cccctccctg ttcatgtccc tctctgcctc ctccacctcg tctcacggga
1800
gctctgccgc ccagaagcag aaccccgacc acacagacca gcacaccaag cactggcggaa
1860
cagacaattt gaaaaccatt tcttccccgg ctggtcaga ggtcagttct ttatcagact
1920
ccacaaggac gagactgaca agegagtt
1949

<210> 6150
<211> 508
<212> PRT
<213> Homo sapiens

<400> 6150
Met Pro Lys Gly Gly Cys Pro Lys Ala Pro Gln Gln Glu Glu Leu Pro
1 5 10 15
Leu Ser Ser Asp Met Val Glu Lys Gln Thr Gly Lys Lys Asp Lys Asp
20 25 30
Lys Val Ser Leu Thr Lys Thr Pro Lys Leu Glu Arg Gly Asp Gly Gly
35 40 45
Lys Glu Val Arg Glu Arg Ala Ser Lys Arg Lys Leu Pro Phe Thr Ala
50 55 60
Gly Ala Asn Gly Glu Gln Lys Asp Ser Asp Thr Glu Lys Gln Gly Pro
65 70 75 80
Glu Arg Lys Arg Ile Lys Lys Glu Pro Val Thr Arg Lys Ala Gly Leu
85 90 95
Leu Phe Gly Met Gly Leu Ser Gly Ile Arg Ala Gly Tyr Pro Leu Ser
100 105 110
Glu Arg Gln Gln Val Ala Leu Leu Met Gln Met Thr Ala Glu Ser
115 120 125
Ala Asn Ser Pro Val Asp Thr Thr Pro Lys His Pro Ser Gln Ser Thr
130 135 140
Val Cys Gln Lys Gly Thr Pro Asn Ser Ala Ser Lys Thr Lys Asp Lys
145 150 155 160
Leu Asn Lys Arg Asn Glu Arg Gly Glu Thr Arg Leu His Arg Ala Ala
165 170 175
Ile Arg Gly Asp Ala Arg Arg Ile Lys Glu Leu Ile Ser Glu Gly Ala
180 185 190
Asp Val Asn Val Lys Asp Phe Ala Gly Trp Thr Ala Leu His Glu Ala

195	200	205
Cys Asn Arg Gly Tyr Tyr Asp Val Ala Lys Gln Leu Leu Ala Ala Gly		
210	215	220
Ala Glu Val Asn Thr Lys Gly Leu Asp Asp Asp Thr Pro Leu His Asp		
225	230	235
Ala Ala Asn Asn Gly His Tyr Lys Val Val Lys Leu Leu Leu Arg Tyr		240
245	250	255
Gly Gly Asn Pro Gln Gln Ser Asn Arg Lys Gly Glu Thr Pro Leu Lys		
260	265	270
Val Ala Asn Ser Pro Thr Met Val Asn Leu Leu Leu Gly Lys Gly Thr		
275	280	285
Tyr Thr Ser Ser Glu Glu Ser Ser Thr Glu Ser Ser Glu Glu Glu Asp		
290	295	300
Ala Pro Ser Phe Ala Pro Ser Ser Ser Val Asp Gly Asn Asn Thr Asp		
305	310	315
Ser Glu Phe Glu Lys Gly Leu Lys His Lys Ala Lys Asn Pro Glu Pro		320
325	330	335
Gln Lys Ala Thr Ala Pro Val Lys Asp Glu Tyr Glu Phe Asp Glu Asp		
340	345	350
Asp Glu Gln Asp Arg Val Pro Pro Val Asp Asp Lys His Leu Leu Lys		
355	360	365
Lys Asp Tyr Arg Lys Glu Thr Lys Ser Asn Ser Phe Ile Ser Ile Pro		
370	375	380
Lys Met Glu Val Lys Ser Tyr Thr Lys Asn Asn Thr Ile Ala Pro Lys		
385	390	395
Lys Ala Ser His Arg Ile Leu Ser Asp Thr Ser Asp Glu Glu Asp Ala		400
405	410	415
Ser Val Thr Val Gly Thr Gly Glu Lys Leu Arg Leu Ser Ala His Thr		
420	425	430
Ile Leu Pro Gly Ser Lys Thr Arg Glu Pro Ser Asn Ala Lys Gln Gln		
435	440	445
Lys Glu Lys Asn Lys Val Lys Lys Lys Arg Lys Lys Glu Thr Lys Gly		
450	455	460
Arg Glu Val Arg Phe Gly Lys Arg Ser Xaa Ser Ser Ala Pro Arg Ser		
465	470	475
Arg Arg Ala Ser Pro Gln Arg Val Gly Arg Met Thr Gly Thr Leu Trp		480
485	490	495
Gly Ala Leu Ala Ala Ser Arg Gly Pro Arg Trp Cys		
500	505	

<210> 6151
<211> 648
<212> DNA
<213> Homo sapiens

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<400> 6151
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aaaagctcca accacgttgc cagtccttgg gtgctgcagt tggtcgggga gaggggctgt
120
gttgagggtca cttctggta gacggagacc cgctttcag actctgtggc gcagcaggcg
180
ggccaggaac atttgggccaa ctattgtct tagccctgcc gcgcctgact ttctctccctc
240
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tactttcctt ccgacccgtag ggacaagtgt ggggatccgc tttgggctcc aaggccctgc
 300
 ccgcactggc agcaccaagc gggtgttagaa tgactggaag gagcaggaa ggaagatggg
 360
 tgtcaactgt cccggccagt ggctgcgtgc atgtgtgtgt gaacaggaa aaggccaccc
 420
 tctcccatgt ttctcccgtc tcctcggttc tcctcggaga cccgcaggc tgcccggagt
 480
 agctccgagt tgccctgggt cgctggggct tggtccgcat cctccctccgc tagtccgctc
 540
 ccgcgttcca cagcgccccg cgcgcggtg tgcaacgcact gcggcttaac ccagccgaca
 600
 aggcacgctt gccaaagagg cgcggtgtg tgggtgcggg gtccgcgg
 648

<210> 6152
<211> 130
<212> PRT
<213> Homo sapiens

<400> 6152
Met Arg Thr Lys Pro Gln Arg Pro Arg Ala Thr Arg Ser Tyr Leu Gly
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Gln Pro Cys Gly Ser Pro Arg Arg Thr Glu Glu Thr Gly Glu Thr Trp
 20 25 30
Glu Arg Val Ala Phe Ser Leu Phe Thr His Thr Cys Thr Gln Pro Leu
 35 40 45
Ala Gly Thr Val Asp Thr His Leu Pro Ser Leu Leu Leu Pro Val Ile
 50 55 60
Leu His Pro Leu Gly Ala Ala Ser Ala Gly Arg Ala Leu Glu Pro Lys
 65 70 75 80
Ala Asp Pro His Thr Cys Pro Tyr Gly Arg Lys Glu Ser Arg Gly Glu
 85 90 95
Lys Val Arg Arg Gly Arg Ala Lys Ser Asn Ser Gly Pro Asn Val Pro
 100 105 110
Gly Pro Pro Ala Ala Pro Gln Ser Leu Lys Ser Gly Ser Pro Ser Thr
 115 120 125
Arg Arg
 130

<210> 6153
<211> 1810
<212> DNA
<213> Homo sapiens

<400> 6153
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cacaaggatg ccgtcacctg tgtgaacttc tcctccttcgg gacacctgt tggccggc
 180
tccccgagaca agactgtccg catctggta cccaatgtca aaggtgagtc cactgtgttt
 240

cgtgcacaca cagccacagt gaggagtgtc cacttctgca gtgatggcca gtccttcgtg
300
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360
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720
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780
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1810

<210> 6154
<211> 388
<212> PRT
<213> Homo sapiens

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35 40 45
Asn Phe Ser Pro Ser Gly His Leu Leu Ala Ser Gly Ser Arg Asp Lys
50 55 60
Thr Val Arg Ile Trp Val Pro Asn Val Lys Gly Glu Ser Thr Val Phe
65 70 75 80
Arg Ala His Thr Ala Thr Val Arg Ser Val His Phe Cys Ser Asp Gly
85 90 95
Gln Ser Phe Val Thr Ala Ser Asp Asp Lys Thr Val Lys Val Trp Ala
100 105 110
Thr His Arg Gln Lys Phe Leu Phe Ser Leu Ser Gln His Ile Asn Trp
115 120 125
Val Arg Cys Ala Lys Phe Ser Pro Asp Gly Arg Leu Ile Val Ser Ala
130 135 140
Ser Asp Asp Lys Thr Val Lys Leu Trp Asp Lys Ser Ser Arg Glu Cys
145 150 155 160
Val His Ser Tyr Cys Glu His Gly Gly Phe Val Thr Tyr Val Asp Phe
165 170 175
His Pro Ser Gly Thr Cys Ile Ala Ala Gly Met Asp Asn Thr Val
180 185 190
Lys Val Trp Asp Val Arg Thr His Arg Leu Leu Gln His Tyr Gln Leu
195 200 205
His Ser Ala Ala Val Asn Gly Leu Ser Phe His Pro Ser Gly Asn Tyr
210 215 220
Leu Ile Thr Ala Ser Ser Asp Ser Thr Leu Lys Ile Leu Asp Leu Met
225 230 235 240
Glu Gly Arg Leu Leu Tyr Thr Leu His Gly His Gln Gly Pro Ala Thr
245 250 255
Thr Val Ala Phe Ser Arg Thr Gly Glu Tyr Phe Ala Ser Gly Ser
260 265 270
Asp Glu Gln Val Met Val Trp Lys Ser Asn Phe Asp Ile Val Asp His
275 280 285
Gly Glu Val Thr Lys Val Pro Arg Pro Pro Ala Thr Leu Ala Ser Ser
290 295 300
Met Gly Asn Leu Pro Glu Val Asp Phe Pro Val Pro Pro Gly Arg Gly
305 310 315 320
Trp Ser Val Glu Ser Val Gln Ser Gln Pro Gln Glu Pro Val Ser Val
325 330 335
Pro Gln Thr Leu Thr Ser Thr Leu Glu His Ile Val Gly Gln Leu Asp
340 345 350
Val Leu Thr Gln Thr Val Ser Ile Leu Glu Gln Arg Leu Thr Leu Thr
355 360 365
Glu Asp Lys Leu Lys Gln Cys Leu Glu Asn Gln Gln Leu Ile Met Gln

370
 Arg Ala Thr Pro
 385

<210> 6155
<211> 995
<212> DNA
<213> Homo sapiens

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120
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180
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240
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540
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720
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995

<210> 6156
<211> 164
<212> PRT
<213> Homo sapiens

<400> 6156
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35																
Met	Thr	Leu	Ala	Asp	Gly	Arg	Val	Val	Leu	Ala	Leu	Glu	Gly	Gly	His	
50																
Asp	Leu	Thr	Ala	Ile	Cys	Asp	Ala	Ser	Glu	Ala	Cys	Val	Asn	Ala	Leu	
65																
Leu	Gly	Asn	Glu	Leu	Glu	Pro	Leu	Ala	Glu	Asp	Ile	Leu	His	Gln	Ser	
85																
Pro	Asn	Met	Asn	Ala	Val	Ile	Ser	Leu	Gln	Lys	Ile	Ile	Glu	Ile	Gln	
100																
Lys	Leu	Leu	Val	Ser	Leu	Trp	Lys	Arg	Ser	Gln	Pro	Cys	Glu	Val	Pro	
115																
Ser	Pro	Pro	Leu	Ile	Phe	Pro	Val	Cys	Asp	Ile	Ile	Val	Tyr	Pro	Pro	
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Phe	Asn	Gly	Thr													

<210> 6157

<211> 2135

<212> DNA

<213> Homo sapiens

<400> 6157

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 540
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 720
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 780
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 840
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 2040
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 2135

<210> 6158
 <211> 455
 <212> PRT
 <213> Homo sapiens

<400> 6158
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 Ala Ala Ser Gly Ile Tyr Phe Tyr Ser Asn Lys Tyr Leu Asp Pro Asn

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Asp	Phe	Gly	Ala	Val	Arg	Val	Gly	Arg	Ala	Val	Ala	Thr	Thr	Ala	Val
	35	40										45			
Ile	Ser	Tyr	Asp	Tyr	Leu	Thr	Ser	Leu	Lys	Ser	Val	Pro	Tyr	Gly	Ser
	50	55										60			
Glu	Glu	Tyr	Leu	Gln	Leu	Arg	Ser	Lys	Ile	His	Asp	Leu	Phe	Gln	Ser
	65	70							75				80		
Phe	Asp	Asp	Thr	Pro	Leu	Gly	Thr	Ala	Ser	Leu	Ala	Gln	Val	His	Lys
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Ala	Val	Leu	His	Asp	Gly	Arg	Thr	Val	Ala	Val	Lys	Val	Gln	His	Pro
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Lys	Val	Arg	Ala	Gln	Ser	Ser	Lys	Asp	Ile	Leu	Leu	Met	Glu	Val	Leu
												115	120	125	
Val	Leu	Ala	Val	Lys	Gln	Leu	Phe	Pro	Glu	Phe	Phe	Met	Trp	Leu	
											130	135	140		
Val	Asp	Glu	Ala	Lys	Lys	Asn	Leu	Pro	Leu	Glu	Leu	Asp	Phe	Leu	Asn
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Glu	Gly	Arg	Asn	Ala	Glu	Lys	Val	Ser	Gln	Met	Leu	Arg	His	Phe	Asp
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Phe	Leu	Lys	Val	Pro	Arg	Ile	His	Trp	Asp	Leu	Ser	Thr	Glu	Arg	Val
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Leu	Leu	Met	Glu	Phe	Val	Asp	Gly	Gly	Gln	Val	Asn	Asp	Arg	Asp	Tyr
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Met	Glu	Arg	Asn	Lys	Ile	Asp	Val	Asn	Glu	Ile	Ser	Arg	His	Leu	Gly
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Lys	Met	Tyr	Ser	Glu	Met	Ile	Phe	Val	Asn	Gly	Phe	Val	His	Cys	Asp
										225	230	235	240		
Pro	His	Pro	Gly	Asn	Val	Leu	Val	Arg	Lys	His	Pro	Gly	Thr	Gly	Lys
										245	250	255			
Ala	Glu	Ile	Val	Leu	Leu	Asp	His	Gly	Leu	Tyr	Gln	Met	Leu	Thr	Glu
										260	265	270			
Glu	Phe	Arg	Leu	Asn	Tyr	Cys	His	Leu	Trp	Gln	Ser	Leu	Ile	Trp	Thr
										275	280	285			
Asp	Met	Lys	Arg	Val	Lys	Glu	Tyr	Ser	Gln	Arg	Leu	Gly	Ala	Gly	Asp
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Leu	Tyr	Pro	Leu	Phe	Ala	Cys	Met	Leu	Thr	Ala	Arg	Ser	Trp	Asp	Ser
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Val	Asn	Arg	Gly	Ile	Ser	Gln	Ala	Pro	Val	Thr	Ala	Thr	Glu	Asp	Leu
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Glu	Ile	Arg	Asn	Asn	Ala	Ala	Asn	Tyr	Leu	Pro	Gln	Ile	Ser	His	Leu
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Leu	Asn	His	Val	Pro	Arg	Gln	Met	Leu	Leu	Ile	Leu	Lys	Thr	Asn	Asp
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Leu	Leu	Arg	Gly	Ile	Glu	Ala	Ala	Leu	Gly	Thr	Arg	Ala	Ser	Ala	Ser
										370	375	380			
Ser	Phe	Leu	Asn	Met	Ser	Arg	Cys	Cys	Ile	Arg	Ala	Leu	Ala	Glu	His
										385	390	395	400		
Lys	Lys	Lys	Asn	Thr	Cys	Ser	Phe	Phe	Arg	Arg	Thr	Gln	Ile	Ser	Phe
										405	410	415			
Ser	Glu	Ala	Phe	Asn	Leu	Trp	Gln	Ile	Asn	Leu	His	Glu	Leu	Ile	Leu
										420	425	430			
Arg	Val	Lys	Gly	Leu	Lys	Leu	Ala	Asp	Arg	Val	Leu	Ala	Leu	Ile	Cys
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450

455

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<211> 4310
<212> DNA
<213> Homo sapiens

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1380

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 ggtgccgcac aaagttgtgg ccaggccggg gcagcagtga gcctttgatc cggccagga
 3780
 cctgtgaggt gtccacgtca aagaagctct gatagtagct gaaggccag aatcccgct
 3840
 gctgctgctg ctgctgctcc tgcaggagcg cggccttgc actctcctcc tccacccat
 3900
 cctcggctcc atagctgcca cctgagccca cggccacagc cacgtccct tgtgggtca
 3960
 gctgatcgct tctgctggtg gtggctgcat ctgggggtgtc agccagaaga ttagtggcct
 4020
 cctcgaattc atggaaggc agtcgtcgg cccatgccc ggtcggtcag gggcgctcc
 4080
 gcatccctcg ctggcgcacca actgcacccca cggaggcttg aactcgctgt cccgtcccc
 4140
 caggtgcgcct ccgc cccccc tcacctgagg ccacctggc cggcgtggct gggcgtcata
 4200
 cctgtgcctt ggctgcagtg gctcttggg ggcgtggcc tggccctgtc agccggccgg
 4260
 ctggattca ccctctggcc cgtggccgt gaggacacca ggctgggtggc
 4310

<210> 6160
 <211> 551
 <212> PRT
 <213> Homo sapiens

<400> 6160
 Leu Glu Val Arg Ala Gly Pro Asp Ser Ala Gly Ile Ala Leu Tyr Ser
 1 5 10 15
 His Glu Asp Val Cys Val Phe Lys Cys Ser Val Ser Arg Glu Thr Glu

Cys	Ser	Arg	Val	Gly	Lys	Gln	Ser	Phe	Ile	Ile	Thr	Leu	Gly	Cys	Asn
20						25						30			
35						40						45			
Ser	Val	Leu	Ile	Gln	Phe	Ala	Thr	Pro	Asn	Asp	Phe	Cys	Ser	Phe	Tyr
50						55						60			
Asn	Ile	Leu	Lys	Thr	Cys	Arg	Gly	His	Thr	Leu	Glu	Arg	Ser	Val	Phe
65						70						75			80
Ser	Glu	Arg	Thr	Glu	Glu	Ser	Ser	Ala	Val	Gln	Tyr	Phe	Gln	Phe	Tyr
						85						90			95
Gly	Tyr	Leu	Ser	Gln	Gln	Asn	Met	Met	Gln	Asp	Tyr	Val	Arg	Thr	
							100					105			110
Gly	Thr	Tyr	Gln	Arg	Ala	Ile	Leu	Gln	Asn	His	Thr	Asp	Phe	Lys	Asp
						115						120			125
Lys	Ile	Val	Leu	Asp	Val	Gly	Cys	Gly	Ile	Leu	Ser	Phe	Phe		
						130						135			140
Ala	Ala	Gln	Ala	Gly	Ala	Arg	Lys	Ile	Tyr	Ala	Val	Glu	Ala	Ser	Thr
145							150					155			160
Met	Ala	Gln	His	Ala	Glu	Val	Leu	Val	Lys	Ser	Asn	Asn	Leu	Thr	Asp
							165					170			175
Arg	Ile	Val	Val	Ile	Pro	Gly	Lys	Val	Glu	Glu	Val	Ser	Leu	Pro	Glu
						180					185			190	
Gln	Val	Asp	Ile	Ile	Ile	Ser	Glu	Pro	Met	Gly	Tyr	Met	Leu	Phe	Asn
						195					200			205	
Glu	Arg	Met	Leu	Glu	Ser	Tyr	Leu	His	Ala	Lys	Lys	Tyr	Leu	Lys	Pro
						210					215			220	
Ser	Gly	Asn	Met	Phe	Pro	Thr	Ile	Gly	Asp	Val	His	Leu	Ala	Pro	Phe
225						230					235			240	
Thr	Asp	Glu	Gln	Leu	Tyr	Met	Glu	Gln	Phe	Thr	Lys	Ala	Asn	Phe	Trp
						245					250			255	
Tyr	Gln	Pro	Ser	Phe	His	Gly	Val	Asp	Leu	Ser	Ala	Leu	Arg	Gly	Ala
						260					265			270	
Ala	Val	Asp	Glu	Tyr	Phe	Arg	Gln	Pro	Val	Val	Asp	Thr	Phe	Asp	Ile
						275					280			285	
Arg	Ile	Leu	Met	Ala	Lys	Ser	Val	Lys	Tyr	Thr	Val	Asn	Phe	Leu	Glu
						290					295			300	
Ala	Lys	Glu	Gly	Asp	Leu	His	Arg	Ile	Glu	Ile	Pro	Phe	Lys	Phe	His
305						310					315			320	
Met	Leu	His	Ser	Gly	Leu	Val	His	Gly	Leu	Ala	Phe	Trp	Phe	Asp	Val
						325					330			335	
Ala	Phe	Ile	Gly	Ser	Ile	Met	Thr	Val	Trp	Leu	Ser	Thr	Ala	Pro	Thr
						340					345			350	
Glu	Pro	Leu	Thr	His	Trp	Tyr	Gln	Val	Arg	Cys	Leu	Phe	Gln	Ser	Pro
						355					360			365	
Leu	Phe	Ala	Lys	Ala	Gly	Asp	Thr	Leu	Ser	Gly	Thr	Cys	Leu	Leu	Ile
						370					375			380	
Ala	Asn	Lys	Arg	Gln	Ser	Tyr	Asp	Ile	Ser	Ile	Val	Ala	Gln	Val	Asp
385						390					395			400	
Gln	Thr	Gly	Ser	Lys	Ser	Ser	Asn	Leu	Leu	Asp	Leu	Lys	Asn	Pro	Phe
						405					410			415	
Phe	Arg	Tyr	Thr	Gly	Thr	Thr	Pro	Ser	Pro	Pro	Pro	Gly	Ser	His	Tyr
						420					425			430	
Thr	Ser	Pro	Ser	Glu	Asn	Met	Trp	Asn	Thr	Gly	Ser	Thr	Tyr	Asn	Leu
						435					440			445	
Ser	Ser	Gly	Met	Ala	Val	Ala	Gly	Met	Pro	Thr	Ala	Tyr	Asp	Leu	Ser

450 455 460
Ser Val Ile Ala Ser Gly Ser Ser Val Gly His Asn Asn Leu Ile Pro
465 470 475 480
Leu Ala Asn Thr Gly Ile Val Asn His Thr His Ser Arg Met Gly Ser
485 490 495
Ile Met Ser Thr Gly Ile Val Gln Gly Ser Ser Gly Ala Gln Gly Ser
500 505 510
Gly Gly Gly Ser Thr Ser Ala His Tyr Ala Val Asn Ser Gln Phe Thr
515 520 525
Met Gly Gly Pro Ala Ile Ser Met Ala Ser Pro Met Ser Ile Pro Thr
530 535 540
Asn Thr Met His Tyr Gly Ser
545 550

<210> 6161
<211> 1489
<212> DNA
<213> Homo sapiens

<400> 6161
ggctgcatga ttttcagcag attcagtaca gagggaaatg agctgtggga gaggaaggag
60
gatggggaa atggcaagaa aaggagcacc ctgcttagaa agggAACGGA gcccgggttg
120
gtggctcacg cctgcaatcc anacaccttggaggccgaa gcaaggagat cacctgagcc
180
caagagtttgc accaccacca catagcaaga ccccatcttatttttggaaaaaaa
240
aaaagcagca accagcagga tgggtggaaa aaagttgtcg aaggcttttc aagatccct
300
ctgcctgctc ttctctcac agagggacag gggagggatcg tgagtcaatgt
360
ccccatgggg atgaaggatg gttgggtca gggccttaga gggagggctg gaaggaggga
420
aggagatggc cagagaagga tggtaggacac agaggtgccg ccgtggatca ccaagagg
480
caggactggc cagaggaagg agaggagatc aaggcaagca tgaggcactt gggagatgca
540
tctgtgcctg cacacagctg aaatccccag gaaataagac gggagcagggtgg
600
cagccgaggt gagaccaaag tgccagctca ctgccacccct cagtaaagac taactgc
660
ttccccacaa ctccccctccc agaagtagct tgctctccct tgccctgccac acatcg
720
gctcaggaa agctccccct ccctggacag ctgtgttcc ctggccaag ggcaggcc
780
gcagagatga ggagctggaa aatccccctcc tcccatccccg cacgtccacg cgtgcc
840
cctgtgcgtgc gggctttca cacacagctt ctttagacgct tagcctgtga ggcgggt
900
gttgtccattt ctccccatgg caaacagcct gaaagagaca aaaaccagg
960
atgttagcatg accccaaagc cactccctgg tctacgctgt tctgcagcct gagectgggg
1020

tggccagggtg gggttgtgca gtgagggggg gaaggagaat agccccaaa aatgctgccg
 1080
 gaatggtaaa gggcctggac tgcaaagcta gtgactttag ctttattttg tggcactgga
 1140
 ggtttccca gtcattgtaa tgataacaatc agatttgcgt tgtcttcaag ttaccatgg
 1200
 aaccgtactt ccacccacca agagtggatt ggagaaggca aaactagggc agagaagcca
 1260
 gggagtgttg agaaggctcg aaccagaca gtgggcagct gggccccaag acggatgggg
 1320
 gactccagaa gcgtggagct ggcagagaga aacctgccc gggcatcaga gaaaaggcg
 1380
 actgtgcagg aacagagtag atgaggtggg gaaccttgg gtaagaagag ctgaatcagg
 1440
 agcattgagg cagcggtttt caaaccttag aagcaacagc agggccggc
 1489

<210> 6162

<211> 58

<212> PRT

<213> Homo sapiens

<400> 6162
 Gly Cys Met Ile Phe Ser Arg Phe Ser Thr Glu Gly Ser Glu Leu Trp
 1 5 10 15
 Glu Arg Lys Glu Asp Gly Gly Asn Gly Lys Lys Arg Ser Thr Leu Leu
 20 25 30
 Arg Lys Gly Thr Glu Pro Gly Val Val Ala His Ala Cys Asn Pro Xaa
 35 40 45
 Thr Leu Gly Gly Arg Ser Lys Glu Ile Thr
 50 55

<210> 6163

<211> 713

<212> DNA

<213> Homo sapiens

<400> 6163
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 60
 gagatgagtc cagctgcggc cagagccatg ggatgtgggt cactgtgacc cagtgggtca
 120
 caggtgctga gcaaggaagg gctgggaggc tcaagcaaaa tctacaagaa aaatctaaag
 180
 gggcccgcc tctgccagga aaagcaggcc tggctctgct gaaaccccaa tcacgctctg
 240
 atggataaccg gtacctgggc aaggataccg tggatggact tgattttct ctctgaaat
 300
 gtacgagaag gtgcatgcgg ggatttcggc tgcctaaaa gcaaccctct aaaacccgag
 360
 tgcattttt agaataaaa aggaaggaag gcagtggctg gctgcactgg tcagtaacga
 420
 gatctggagc ttttcgcctt aaggtcactg tttaaaactc tgccctgggt cagttgtAAC
 480

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agaagtcac aactccctca caggcatcg ggtgcacctt tgaatgcca gggggctgt  
540  
gtctgttgtt taccacgegg cgagctccccg ggacacctcc tgacacctcc tgacagtgtc  
600  
ttttctcta ggagtctct ctctcccac ccaccatggc ggcctggct ggaggggagg  
660  
cattggggac tgagtcccttc cccgacaggg agtctctctc cccctggcg cgc  
713
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<210> 6164
<211> 120
<212> PRT
<213> *Homo sapiens*

```

<400> 6164
Met Trp Val Thr Val Thr Gln Trp Val Thr Gly Ala Glu Gln Gly Arg
   1          5           10          15
Ala Gly Arg Leu Lys Gln Asn Leu Gln Glu Lys Ser Lys Gly Ala Gln
   20          .         25           30
Pro Leu Pro Gly Lys Ala Gly Leu Ala Leu Leu Lys Pro Gln Ser Arg
   35          .         40           45
Ser Asp Gly Tyr Arg Tyr Leu Gly Lys Asp Thr Val Asp Gly Leu Asp
   50          .         55           60
Ser Ser Leu Leu Lys Cys Thr Arg Arg Cys Met Arg Gly Phe Arg Leu
   65          .         70           75           80
Pro Glu Lys Gln Pro Ser Lys Thr Arg Val Ser Phe Leu Glu Ser Lys
   85          .         90           95
Arg Lys Glu Gly Ser Gly Trp Leu His Trp Ser Val Thr Arg Ser Gly
  100          .        105          110
Ala Phe Arg Leu Lys Val Thr Val
  115          .        120

```

<210> 6165
<211> 1004
<212> DNA
<213> *Homo sapiens*

<400> 6165
cccgccggga tcggggcggcg aaggccggcg cggcgagcag caaccatgtc ggtgttcggg
60
aagctgttcg gggctggagg gggtaaggcc ggcagaaggcg gcccgacccc ccaggaggcc
120
atccagcggc tgccggacac ggaagagatg ttaagcaaga aacaggagtt cctggagaag
180
aaaaatcgagc aggagctgac ggccgccaag aagcacggca ccaaaaacaa gcgcgcggcc
240
ctccaggcac tgaagcgtaa gaagaggtat gagaagcagc tggcgcatat cgacggcaca
300
ttatcaacca tcgagttcca gcgggaggcc ctggagaatg ccaacaccaa caccgaggtg
360
ctcaagaaca tgggctatgc cgccaaggcc atgaaggcgg cccatgacaa catggacatc
420
gataaaagtgcatgatgcgcggcatttgcgtgaccagc aagaacttgc agaggagatt
480

tcaacagcaa tttcgaaacc tgtagggtt ggagaagagt ttgacgagga tgagctcatg
 540
 gcggaaattag aagaactaga acaggaggaa ctagacaaga atttgctgga aatcagtggaa
 600
 cccgaaacag tccctctacc aaatgttccc tctatagccc taccatcaa acccgccaag
 660
 aagaaaagaag aggaggacga cgacatgaag gaattggaga actgggctgg atccatgtaa
 720
 tggggtccag cgctggctgg gcccagacag actgtggtgg cctgcgcagc gagcaggcgt
 780
 gtgcgtgtgt gggcaggca ggtatgtggc caggcaggtt ccatcgctt cgactctcac
 840
 tccaaagcag tagggccgcg ttgctgctca ctctctgcat agcatggct gcacctggga
 900
 gttggccggg gggaggggggg cgagcgggct ggcacgtgcc tgctgttat aatgttgaat
 960
 ttctgtaaaa taaactgtat ttgcaaatcc aaaaaaaaaaaa aaaa
 1004

<210> 6166
<211> 239
<212> PRT
<213> Homo sapiens

<400> 6166
 pro Ser Arg Ile Gly Arg Arg Arg Pro Ala Arg Arg Ala Ala Thr Met
 1 5 10 15
 Ser Val Phe Gly Lys Leu Phe Gly Ala Gly Gly Lys Ala Gly Lys
 20 25 30
 Gly Gly Pro Thr Pro Gln Glu Ala Ile Gln Arg Leu Arg Asp Thr Glu
 35 40 45
 Glu Met Leu Ser Lys Lys Gln Glu Phe Leu Glu Lys Ile Glu Gln
 50 55 60
 Glu Leu Thr Ala Ala Lys Lys His Gly Thr Lys Asn Lys Arg Ala Ala
 65 70 75 80
 Leu Gln Ala Leu Lys Arg Lys Arg Tyr Glu Lys Gln Leu Ala Gln
 85 90 95
 Ile Asp Gly Thr Leu Ser Thr Ile Glu Phe Gln Arg Glu Ala Leu Glu
 100 105 110
 Asn Ala Asn Thr Asn Thr Glu Val Leu Lys Asn Met Gly Tyr Ala Ala
 115 120 125
 Lys Ala Met Lys Ala Ala His Asp Asn Met Asp Ile Asp Lys Val Asp
 130 135 140
 Glu Leu Met Gln Asp Ile Ala Asp Gln Gln Glu Leu Ala Glu Glu Ile
 145 150 155 160
 Ser Thr Ala Ile Ser Lys Pro Val Gly Phe Gly Glu Glu Phe Asp Glu
 165 170 175
 Asp Glu Leu Met Ala Glu Leu Glu Leu Glu Gln Glu Leu Asp
 180 185 190
 Lys Asn Leu Leu Glu Ile Ser Gly Pro Glu Thr Val Pro Leu Pro Asn
 195 200 205
 Val Pro Ser Ile Ala Leu Pro Ser Lys Pro Ala Lys Lys Lys Glu Glu
 210 215 220
 Glu Asp Asp Asp Met Lys Glu Leu Glu Asn Trp Ala Gly Ser Met

225

230

235

<210> 6167
<211> 1220
<212> DNA
<213> Homo sapiens

<400> 6167
ngccatacag catttagtt ttgttcttc cattaactga agtcacgagg tatgcctcct
60
tggaaactcc aacagttaag agattctcat gtattccatg aaataaaaag caaagaaaaa
120
tcaaaacttgt cttaatgaga tggaagtgtt ggatcaaaca ctgattgagc ttttatgt
180
cctccacttc cccagtgcct tctctctcc cgggtctgcg cggacgeggc ctcttaccc
240
catttgccct cgcgcctccc cgtccctcta cgcgtttgg tccctgtttg gtgtttctg
300
tttgagacta cggcagttag tatgtatgtg acggaccccg agtcacccgc ggcctggac
360
ccctgcctac ctcccgctc gccagccgag ctgtggaaact agcgcgtgcc ccctcgccga
420
cctcggcgcc tccgggtccgc ccctcaacttg tggggggcg cagctcctgg tccctcagct
480
gcgcgcgcgc ccacgcggcc gggctgcggg tctaggggggt ccgcatctcc ctggctttcc
540
aagggttaag gtcgtgattc tagggcggtt gggcgccag ggcctcggtt ggggtggcggt
600
gtctgcctt tttatctccc cgcaaggcccc ccagtcttctt agggaaagcca gtcagtgaag
660
cgccggagggtc cgggcgcgcg gagagagagt ccagtcttgc aggaccgagt agtcctggc
720
caccccccgc ctctgtgtc agaagcagca gtcgcgcgcg tggaatccaa aatttcggga
780
gctgtgaccc ttccatgt taaaacgagt agtctggac gatctggca taggaaccaa
840
tcagaaacaa tcgcttcagc aatcaagacc attgttcatc atggaggaac ccatggatac
900
ctctgagcct ctatctgtcat taccattcac tggcagcag tctttgagc caagtggcaa
960
atttggacag tatccatcga tgcagatgaa ccacatccag gcactggggaa agtggaggac
1020
atagaacagc tcaatcgtg tttgatccaa cacttccatc tcattaagac aagtttgatt
1080
tttctttgtt ttttatttca tggaaatacat gagaatctt taactgttgg agtttccaag
1140
gaggcatacc tcatgacttc agttaatgga aagaacaaaa ctaaaatgt gtatggccaa
1200
agccacaaag ggaaggatcc
1220

<210> 6168
<211> 90
<212> PRT

<213> Homo sapiens

<400> 6168

Ala	Lys	Trp	Gln	Ile	Trp	Thr	Val	Ser	Ile	Asp	Ala	Asp	Glu	Pro	His
1				5			10			15					
Pro	Gly	Thr	Gly	Glu	Val	Glu	Asp	Ile	Glu	Gln	Leu	Asn	Gln	Cys	Leu
					20		25			30					
Ile	Gln	His	Phe	His	Leu	Ile	Lys	Thr	Ser	Leu	Ile	Phe	Leu	Cys	Phe
						35		40			45				
Leu	Phe	His	Gly	Ile	His	Glu	Asn	Leu	Leu	Thr	Val	Gly	Val	Ser	Lys
						50		55			60				
Glu	Ala	Tyr	Leu	Met	Thr	Ser	Val	Asn	Gly	Lys	Asn	Lys	Thr	Lys	Met
	65				70			75			80				
Leu	Tyr	Gly	Gln	Ser	His	Lys	Gly	Lys	Asp						
					85			90							

<210> 6169

<211> 720

<212> DNA

<213> Homo sapiens

<400> 6169

tgagggcttc	gatcccttct	ctgatttgct	gtcagccatg	aacggatgga	tgtgatgcct
60					
gctagccaaa	aggcttcctt	ctgtgtgttg	cagtccctgtg	gcattatgca	tgccccctcc
120					
cagtgacccc	aggctttta	tggctgtgaa	acacgttaaa	atttcagggt	aagacgtgac
180					
cttttgaggt	gactataact	gaagattgct	ttacagaagc	ccaaaaaggt	tttttgagtc
240					
atgatgcaag	aatctggac	tgagacaaaa	agtaacggtt	cagccatcca	aatgggtcg
300					
ggcggcagca	accacttact	agagtgcggc	ggtcttcggg	agggggcggc	caacggagag
360					
acgcggcccg	tggacatcg	ggcagctgac	ctcgccccacg	cccagcagca	gcagcaacag
420					
tggcatctca	taaaccatca	gccctctagg	agtcccagca	gttggcttaa	gagactaatt
480					
tcaagccctt	gggagttgga	agtccctgcag	gtcccttgc	gggagcagtt	gctgagacga
540					
agatgagtgg	acctgtgtgt	cagcctaacc	cttccccatt	ttgaataaaa	ttattctttg
600					
gagaaatggt	tcccactgct	ttcatgcaaa	aataaaaatt	aaacgaaaaa	cagcttaagc
660					
ctgtgaagaa	ggaaaatactg	agctagccag	caaaagagag	aaagaagagg	aggggagagg
720					

<210> 6170

<211> 101

<212> PRT

<213> Homo sapiens

<400> 6170

Met	Met	Gln	Glu	Ser	Gly	Thr	Glu	Thr	Lys	Ser	Asn	Gly	Ser	Ala	Ile
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1 5 10 15
Gln Asn Gly Ser Gly Gly Ser Asn His Leu Leu Glu Cys Gly Gly Leu
20 25 30
Arg Glu Gly Arg Ser Asn Gly Glu Thr Pro Ala Val Asp Ile Gly Ala
35 40 45
Ala Asp Leu Ala His Ala Gln Gln Gln Gln Gln Trp His Leu Ile
50 55 60
Asn His Gln Pro Ser Arg Ser Pro Ser Ser Trp Leu Lys Arg Leu Ile
65 70 75 80
Ser Ser Pro Trp Glu Leu Glu Val Leu Gln Val Pro Cys Gly Glu Gln
85 90 95
Leu Leu Arg Arg Arg
100

<210> 6171

<211> 1130

<212> DNA

<213> Homo sapiens

<400> 6171
nncccgctag gagttcctag taaagtggcg ggagccgcag ctatggagcc gcaggaggag
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agagaaacgc aggttgctgc gtggtaaaa aaaatatttg gagatcatcc tattccacag
120
tatgaggtga acccacggac cacagagatt ttacatcacc tttcagaacg caacagggtc
180
cgggacacaggg atgtctacct ggttaatacgacttgaagc agaaagcaag tgaatacgag
240
tcagaagcca agtatcttca agaccttctc atggagagtg tgaatttttc ccccgccaat
300
ctctcttagca ctggttccag gtatctgaat gctttggttt acagtgcgtt ggcccttgaa
360
acaaggata cctcgctagc tagtttatac cctgcagtga atgatttgac ctctgatctc
420
ttcgttacca aatccaaaag tgaagaaaatc aagattgaac tggaaaaact tgaaaaaaat
480
ttaactgcaa cttagtatt agaaaaatgt ctacaagagg atgtcaagaa agcagagttg
540
catctgtcta cagaaaggc caaagttgat aatcgctgatc agaacatgga ctttctaaaa
600
gcaaaatcgatc aggaatttgc atttggaaatc aaggctgcag aggagcaact ttcagccaga
660
ggcatggatg cttctctgtc tcatacgtcc ttagtagcac tatcagagaa actggcaaga
720
ttaaagcaac agactataacc tttgaagaaa aaattggagt cctatggat cttatgccg
780
aatccgtctc ttgtcaagt gaaaattgaa gaagcaaagc gagaactaga tagcattgaa
840
gctgaactta caagaagagt agacatgtgaa gaactgtgac aaaagccaaa taaaacatct
900
tttccctaaac aaagtaaattt gaataggact ttacagatc tttttccctc ttggcatttc
960
ctaataacaa aactttctgt gtttttagat tacagaatat cataattgtat agaatatggt
1020

ttcttactgt gtgttcatt ttttgtccca aatacatagt tttcatatta aaaaggcttt
1080
tctcttaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
1130

<210> 6172
<211> 292
<212> PRT
<213> Homo sapiens

<400> 6172
Xaa Pro Leu Gly Val Pro Ser Lys Val Ala Gly Ala Ala Ala Met Glu
1 5 10 15
Pro Gln Glu Glu Arg Glu Thr Gln Val Ala Ala Trp Leu Lys Lys Ile
20 25 30
Phe Gly Asp His Pro Ile Pro Gln Tyr Glu Val Asn Pro Arg Thr Thr
35 40 45
Glu Ile Leu His His Leu Ser Glu Arg Asn Arg Val Arg Asp Arg Asp
50 55 60
Val Tyr Leu Val Ile Glu Asp Leu Lys Gln Lys Ala Ser Glu Tyr Glu
65 70 75 80
Ser Glu Ala Lys Tyr Leu Gln Asp Leu Leu Met Glu Ser Val Asn Phe
85 90 95
Ser Pro Ala Asn Leu Ser Ser Thr Gly Ser Arg Tyr Leu Asn Ala Leu
100 105 110
Val Asp Ser Ala Val Ala Leu Glu Thr Lys Asp Thr Ser Leu Ala Ser
115 120 125
Phe Ile Pro Ala Val Asn Asp Leu Thr Ser Asp Leu Phe Arg Thr Lys
130 135 140
Ser Lys Ser Glu Glu Ile Lys Ile Glu Leu Glu Lys Leu Glu Lys Asn
145 150 155 160
Leu Thr Ala Thr Leu Val Leu Glu Lys Cys Leu Gln Glu Asp Val Lys
165 170 175
Lys Ala Glu Leu His Leu Ser Thr Glu Arg Ala Lys Val Asp Asn Arg
180 185 190
Arg Gln Asn Met Asp Phe Leu Lys Ala Lys Ser Glu Glu Phe Arg Phe
195 200 205
Gly Ile Lys Ala Ala Glu Glu Gln Leu Ser Ala Arg Gly Met Asp Ala
210 215 220
Ser Leu Ser His Gln Ser Leu Val Ala Leu Ser Glu Lys Leu Ala Arg
225 230 235 240
Leu Lys Gln Gln Thr Ile Pro Leu Lys Lys Leu Glu Ser Tyr Leu
245 250 255
Asp Leu Met Pro Asn Pro Ser Leu Ala Gln Val Lys Ile Glu Glu Ala
260 265 270
Lys Arg Glu Leu Asp Ser Ile Glu Ala Glu Leu Thr Arg Arg Val Asp
275 280 285
Met Met Glu Leu
290

<210> 6173
<211> 1483
<212> DNA
<213> Homo sapiens

<400> 6173
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240
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420
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<210> 6174

<211> 299
<212> PRT
<213> Homo sapiens

<400> 6174
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Gly Tyr Ala Leu Leu Val Ser Asp Leu Gln Gln Val Trp His Glu Gln
35 40 45
Val Asp Thr Ser Val Val Ser Gln Arg Ala Lys Glu Leu Asn Lys Arg
50 55 60
Leu Thr Ala Pro Pro Ala Ala Phe Leu Cys His Leu Asp Asn Leu Leu
65 70 75 80
Arg Pro Leu Leu Lys Asp Ala Ala His Pro Ser Glu Ala Thr Phe Ser
85 90 95
Cys Asp Cys Val Ala Asp Ala Leu Ile Leu Arg Val Arg Ser Glu Leu
100 105 110
Ser Gly Leu Pro Phe Tyr Trp Asn Phe His Cys Met Leu Ala Ser Pro
115 120 125
Ser Leu Val Ser Gln His Leu Ile Arg Pro Leu Met Gly Met Ser Leu
130 135 140
Ala Leu Gln Cys Gln Val Arg Glu Leu Ala Thr Leu Leu His Met Lys
145 150 155 160
Asp Leu Glu Ile Gln Asp Tyr Gln Glu Ser Gly Ala Thr Leu Ile Arg
165 170 175
Asp Arg Leu Lys Thr Glu Pro Phe Glu Asn Ser Phe Leu Glu Gln
180 185 190
Phe Met Ile Glu Lys Leu Pro Glu Ala Cys Ser Ile Gly Asp Gly Lys
195 200 205
Pro Phe Val Met Asn Leu Gln Asp Leu Tyr Met Ala Val Thr Thr Gln
210 215 220
Glu Val Gln Val Gly Gln Lys His Gln Gly Ala Gly Asp Pro His Thr
225 230 235 240
Ser Asn Ser Ala Ser Leu Gln Gly Ile Asp Ser Gln Cys Val Asn Gln
245 250 255
Pro Glu Gln Leu Val Ser Ser Ala Pro Thr Leu Ser Ala Pro Glu Lys
260 265 270
Glu Ser Thr Gly Thr Ser Gly Pro Leu Gln Arg Pro Gln Leu Ser Lys
275 280 285
Val Lys Arg Lys Asn Pro Arg Gly Leu Phe Ser
290 295

<210> 6175
<211> 349
<212> DNA
<213> Homo sapiens

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120

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240
tggttgaata gaagtcaaac agtagtgaa gagtatttg cttttcttgg taatcttga
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349

<210> 6176
<211> 90
<212> PRT
<213> Homo sapiens

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20 25 30
Gly Glu Thr Asn Asp Phe Glu Leu Leu Lys Asn Gln Leu Leu Asp Pro
35 40 45
Asp Ile Lys Arg Leu Pro Trp Leu Asn Arg Ser Gln Thr Val Val Glu
50 55 60
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Leu Arg Pro Cys Leu Ser Met Ile Ala Ser
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<210> 6177
<211> 1536
<212> DNA
<213> Homo sapiens

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<210> 6178
 <211> 310
 <212> PRT
 <213> Homo sapiens

<400> 6178
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 35 40 45
 Ala Gly Ser Leu Lys Gly Ser Leu Ser Val Glu Glu Gln Leu Ser Leu
 50 55 60
 Ile Ser Gly Cys Pro Asn Ile Gln Glu Ala Val Glu Gly Ala Met His
 65 70 75 80
 Ile Gln Glu Cys Val Pro Glu Asp Leu Glu Leu Lys Lys Ile Phe
 85 90 95
 Ala Gln Leu Asp Ser Ile Ile Asp Asp Arg Val Ile Leu Ser Ser Ser
 100 105 110
 Thr Ser Cys Leu Met Pro Ser Lys Leu Phe Ala Gly Leu Val His Val

115	120	125
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130	135	140
Leu Val Glu Leu Val Pro His Pro Glu Thr Ala Pro Thr Thr Val Asp		
145	150	155
Arg Thr His Ala Leu Met Lys Lys Ile Gly Xaa Val Pro His Ala Ser		160
165	170	175
Pro Glu Gly Gly Arg Leu Arg Ser Glu Pro Pro Ala Ile Cys Asn		
180	185	190
His Gln Arg Gly Leu Ala Ala Ser Gly Gly Arg Asn Xaa Cys Leu Leu		
195	200	205
Val Thr Trp Xaa Leu Val Met Ser Glu Gly Leu Gly Met Arg Tyr Ala		
210	215	220
Phe Ile Gly Pro Leu Glu Thr Met His Leu Asn Ala Glu Gly Met Leu		
225	230	235
Ser Tyr Cys Asp Arg Tyr Ser Glu Gly Ile Lys His Val Leu Gln Thr		240
245	250	255
Phe Gly Pro Ile Pro Glu Phe Ser Arg Ala Thr Ala Glu Lys Val Asn		
260	265	270
Gln Asp Met Cys Met Lys Val Pro Asp Asp Pro Glu His Leu Ala Ala		
275	280	285
Arg Arg Gln Trp Arg Asp Glu Cys Leu Met Arg Leu Ala Lys Leu Lys		
290	295	300
Ser Gln Val Gln Pro Gln		
305	310	

<210> 6179

<211> 2940

<212> DNA

<213> Homo sapiens

<400> 6179

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660

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<210> 6180
 <211> 751
 <212> PRT
 <213> Homo sapiens

<400> 6180
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 Trp Arg Xaa Tyr Leu Thr Asp Glu Phe Ala Lys Gly Arg Lys Val Ala
 35 40 45
 Asp Leu Tyr Glu Leu Val Gln Tyr Ala Gly Asn Ile Ile Pro Arg Leu
 50 55 60
 Tyr Leu Leu Ile Thr Val Gly Val Val Tyr Val Lys Ser Phe Pro Gln
 65 70 75 80
 Ser Arg Lys Asp Ile Leu Lys Asp Leu Val Glu Met Cys Arg Gly Val
 85 90 95
 Gln His Pro Leu Arg Gly Leu Phe Leu Arg Asn Tyr Leu Leu Gln Cys
 100 105 110
 Thr Arg Asn Ile Leu Pro Asp Glu Gly Glu Pro Thr Asp Glu Glu Thr
 115 120 125
 Thr Gly Asp Ile Ser Asp Ser Met Asp Phe Val Leu Leu Asn Phe Ala
 130 135 140
 Glu Met Asn Lys Leu Trp Val Arg Met Gln His Gln Gly His Ser Arg
 145 150 155 160
 Asp Arg Glu Lys Arg Glu Arg Glu Arg Gln Glu Leu Arg Ile Leu Val
 165 170 175
 Gly Thr Asn Leu Val Arg Leu Ser Xaa Ser Trp Arg Cys Lys Cys Gly
 180 185 190
 Thr Leu Gln Gln Ile Val Leu Thr Gly Ile Leu Glu Gln Val Val Asn

195	200	205
Cys Arg Asp Ala Leu Ala Gln Glu Tyr Leu Met Glu Cys Ile Ile Gln		
210	215	220
Val Phe Pro Asp Glu Phe His Leu Gln Thr Leu Asn Pro Phe Leu Arg		
225	230	235
Ala Cys Ala Glu Leu His Gln Asn Val Asn Val Lys Asn Ile Ile Ile		
245	250	255
Ala Leu Ile Asp Arg Leu Ala Leu Phe Ala His Arg Glu Asp Gly Pro		
260	265	270
Gly Ile Pro Ala Asp Ile Lys Leu Phe Asp Ile Phe Ser Gln Gln Val		
275	280	285
Ala Thr Val Ile Gln Ser Arg Gln Asp Met Pro Ser Glu Asp Val Val		
290	295	300
Ser Leu Gln Val Ser Leu Ile Asn Leu Ala Met Lys Cys Tyr Pro Asp		
305	310	315
Arg Val Asp Tyr Val Asp Lys Val Leu Glu Thr Thr Val Glu Ile Phe		
325	330	335
Asn Lys Leu Asn Leu Glu His Ile Ala Thr Ser Ser Ala Val Ser Lys		
340	345	350
Glu Leu Thr Arg Leu Leu Lys Ile Pro Val Asp Thr Tyr Asn Asn Ile		
355	360	365
Leu Thr Val Leu Lys Leu Lys His Phe His Pro Leu Phe Glu Tyr Phe		
370	375	380
Asp Tyr Glu Ser Arg Lys Ser Met Ser Cys Tyr Val Leu Ser Asn Val		
385	390	395
Leu Asp Tyr Asn Thr Glu Ile Val Ser Gln Asp Gln Val Asp Ser Ile		
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Met Asn Leu Val Ser Thr Leu Ile Gln Asp Gln Pro Asp Gln Pro Val		
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Glu Asp Pro Asp Pro Glu Asp Phe Ala Asp Glu Gln Ser Leu Val Gly		
435	440	445
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Ile Leu Asn Thr Ala Arg Lys His Phe Gly Ala Gly Gly Asn Gln Arg		
465	470	475
Ile Arg Phe Thr Leu Pro Pro Leu Val Phe Ala Ala Tyr Gln Leu Ala		
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Phe Arg Tyr Lys Glu Asn Ser Lys Trp Met Thr Asn Gly Lys Arg Asn		
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Ala Arg Arg Phe Phe His Leu Pro Xaa Gln Thr Ile Ser Ala Leu Ile		
515	520	525
Lys Ala Glu Leu Ala Glu Leu Pro Leu Arg Leu Phe Leu Gln Gly Ala		
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Ser Lys Ala Gln Leu Ala Ala Ile Thr Leu Ile Gly Thr Phe Glu		
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Arg Met Lys Cys Phe Ser Glu Glu Asn His Glu Pro Leu Arg Thr Gln		
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Cys Ala Leu Ala Ala Ser Lys Leu Leu Lys Lys Pro Asp Gln Gly Arg		
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Ala Glu His Leu Cys Thr Ser Leu Trp Ser Gly Arg Asn Thr Asp Lys		

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Asn Gly Glu Glu Leu His	Gly Gly Lys Arg Val Met Glu Cys Leu Lys		
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Lys Ala Leu Lys Ile Ala Asn Gln Cys Met Asp Pro Ser Leu Gln Val			
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Gln Leu Phe Ile Glu Ile Leu Asn Arg Tyr Ile Tyr Phe Tyr Glu Lys			
675	680	685	
Glu Asn Asp Ala Val Thr Ile Gln Val Leu Asn Gln Leu Ile Gln Lys			
690	695	700	
Ile Arg Glu Asp Leu Pro Asn Leu Glu Ser Ser Glu Glu Thr Glu Gln			
705	710	715	720
Ile Asn Lys His Phe His Asn Thr Leu Glu His Leu Arg Leu Arg Arg			
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Glu Ser Pro Glu Ser Glu Gly Pro Ile Tyr Glu Gly Leu Ile Leu			
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<210> 6181

<211> 1135

<212> DNA

<213> Homo sapiens

<400> 6181

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<210> 6182
 <211> 236
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Asp Ala Gln Lys His Asp Val Glu Val Leu Glu Arg Asn Phe Gln Thr
 50 55 60
 Ile Leu Cys Glu Phe Glu Thr Leu Tyr Lys Ala Phe Ser Asn Cys Ser
 65 70 75 80
 Leu Pro Gln Gly Trp Lys Met Asn Ser Thr Pro Ser Gly Glu Trp Phe
 85 90 95
 Thr Phe Tyr Leu Val Asn Gln Gly Val Cys Val Pro Arg Asn Cys Arg
 100 105 110
 Lys Cys Pro Arg Thr Tyr Arg Leu Leu Gly Ser Leu Arg Thr Cys Ile
 115 120 125
 Gly Asn Asn Val Phe Gly Asn Ala Cys Ile Ser Val Leu Ser Pro Gly
 130 135 140
 Thr Val Ile Thr Glu His Tyr Gly Pro Thr Asn Ile Arg Ile Arg Cys
 145 150 155 160
 His Leu Gly Leu Lys Thr Pro Asn Gly Cys Glu Leu Val Val Gly Gly
 165 170 175
 Glu Pro Gln Cys Trp Ala Glu Gly Arg Cys Leu Leu Phe Asp Asp Ser
 180 185 190
 Phe Leu His Ala Ala Phe His Glu Gly Ser Ala Glu Asp Gly Pro Arg
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<210> 6183
 <211> 2530
 <212> DNA
 <213> Homo sapiens

<400> 6183
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1320
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1740

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 1920
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 1980
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 2040
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 2160
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 2280
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<210> 6184
 <211> 308
 <212> PRT
 <213> Homo sapiens

<400> 6184
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 Gly Met Gly Asn Arg Gly Gly Phe Arg Gly Gly Phe Gly Ser Gly Ile
 35 40 45
 Arg Gly
 50 55 60
 Ala Arg Gly Gly Lys Ala Glu Asp Lys Glu Trp Met Pro Val Thr Lys
 65 70 75 80
 Leu Gly Arg Leu Val Lys Asp Met Lys Ile Lys Ser Leu Glu Glu Ile
 85 90 95
 Tyr Leu Phe Ser Leu Pro Ile Lys Glu Ser Glu Ile Ile Asp Phe Phe
 100 105 110
 Leu Gly Ala Ser Leu Lys Asp Glu Val Leu Lys Ile Met Pro Val Gln
 115 120 125
 Lys Gln Thr Arg Ala Gly Gln Arg Thr Arg Phe Lys Ala Phe Val Ala
 130 135 140
 Ile Gly Asp Tyr Asn Gly His Val Gly Leu Gly Val Lys Cys Ser Lys

145 150 155 160
Glu Val Ala Thr Ala Ile Arg Gly Ala Ile Ile Leu Ala Lys Leu Ser
165 170 175
Ile Val Pro Val Arg Arg Gly Tyr Trp Gly Asn Lys Ile Gly Lys Pro
180 185 190
His Thr Val Pro Cys Lys Val Thr Gly Arg Cys Gly Ser Val Leu Val
195 200 205
Arg Leu Ile Pro Ala Pro Arg Gly Thr Gly Ile Val Ser Ala Pro Val
210 215 220
Pro Lys Lys Leu Leu Met Met Ala Gly Ile Asp Asp Cys Tyr Thr Ser
225 230 235 240
Ala Arg Gly Cys Thr Ala Thr Leu Gly Asn Phe Ala Lys Ala Thr Phe
245 250 255
Asp Ala ile Ser Lys Thr Tyr Ser Tyr Leu Thr Pro Asp Leu Trp Lys
260 265 270
Glu Thr Val Phe Thr Lys Ser Pro Tyr Gln Glu Phe Thr Asp His Leu
275 280 285
Val Lys Thr His Thr Arg Val Ser Val Gln Arg Thr Gln Ala Pro Ala
290 295 300
Val Ala Thr Thr
305

<210> 6185
<211> 1231
<212> DNA
<213> Homo sapiens

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120
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180
ccaccctcta ggaccaaggt cactgcgta ttggatagga cctcaggag ttagcagggg
240
gctcatggtt aagagtgtga actacagctt agacctacag ggttccctgc ccagcttc
300
cacaaccag ctgtgcaacc ctagacaagt gagttaatgt ccctgggcct cagtttctc
360
ttagtaaat gtgtgttagcc atagagggct gttatgagga ttcagtcaaa tgacacatga
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600
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660
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720
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780

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 960
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 1231

<210> 6186
 <211> 133
 <212> PRT
 <213> Homo sapiens

<400> 6186
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 20 25 30
 Gly Tyr Ile Cys Arg Ile Cys His Lys Phe Tyr His Ser Asn Ser Gly
 35 40 45
 Ala Gln Leu Ser His Cys Lys Ser Leu Gly His Phe Glu Asn Leu Gln
 50 55 60
 Lys Tyr Lys Ala Ala Lys Asn Pro Ser Pro Thr Thr Arg Pro Val Ser
 65 70 75 80
 Arg Arg Cys Ala Ile Asn Ala Arg Asn Ala Leu Thr Ala Leu Phe Thr
 85 90 95
 Ser Ser Gly Arg Pro Pro Ser Gln Pro Asn Thr Gln Asp Lys Thr Pro
 100 105 110
 Ser Lys Val Thr Ala Arg Pro Ser Gln Pro Pro Leu Pro Arg Arg Ser
 115 120 125
 Thr Arg Leu Lys Thr
 130

<210> 6187
 <211> 909
 <212> DNA
 <213> Homo sapiens

<400> 6187
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 120
 gtcacagcag cactgttact gggtctcatg atgggtggca ctggagacga ggatgagaac
 180

agccccgtgtg cccatgaggc cctctggac gaggacaccc tcttttgcga gggccttgaa
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 300
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 360
 gcaacctata tcctggatgt ggtggatcca gatgccccta gcagagcaga acccagacag
 420
 agattcttggaa gacattggct ggtaacagat atcaagggcg ccgacctgaa gaaaggaaag
 480
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 540
 catcgctacc agttctttgt ctatcttcag gaaggaaaag tcatctctt cttcccaag
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 720
 gctcccagag aaagggccag cgagcccaag cacaAAAacc aggccggagat agctgcctgc
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 909

<210> 6188
 <211> 227
 <212> PRT
 <213> Homo sapiens

<400> 6188
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 Met Met Val Val Thr Gly Asp Glu Asp Glu Asn Ser Pro Cys Ala His
 20 25 30
 Glu Ala Leu Leu Asp Glu Asp Thr Leu Phe Cys Gln Gly Leu Glu Val
 35 40 45
 Phe Tyr Pro Glu Leu Gly Asn Ile Gly Cys Lys Val Val Pro Asp Cys
 50 55 60
 Asn Asn Tyr Arg Gln Ile Thr Ser Trp Met Glu Pro Ile Val Lys
 65 70 75 80
 Phe Pro Gly Ala Val Tyr Gly Ala Thr Tyr Ile Leu Val Met Val Asp
 85 90 95
 Pro Asp Ala Pro Ser Arg Ala Glu Pro Arg Gln Arg Phe Trp Arg His
 100 105 110
 Trp Leu Val Thr Asp Ile Lys Gly Ala Asp Leu Lys Lys Gly Lys Ile
 115 120 125
 Gln Gly Gln Glu Leu Ser Ala Tyr Gln Ala Pro Ser Pro Pro Ala His
 130 135 140
 Ser Gly Phe His Arg Tyr Gln Phe Phe Val Tyr Leu Gln Glu Gly Lys
 145 150 155 160
 Val Ile Ser Leu Leu Pro Lys Glu Asn Lys Thr Arg Gly Ser Trp Lys

165 170 175
Met Asp Arg Phe Leu Asn Arg Phe His Leu Gly Glu Pro Glu Ala Ser
180 185 190
Thr Gln Phe Met Thr Gln Asn Tyr Gln Asp Ser Pro Thr Leu Gln Ala
195 200 205
Pro Arg Glu Arg Ala Ser Glu Pro Lys His Lys Asn Gln Ala Glu Ile
210 215 220
Ala Ala Cys
225

<210> 6189
<211> 2761
<212> DNA
<213> Homo sapiens

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120
tgaggcaagc ccccagggttc cgctcttgcc agagggacag gagccatggc tcagaaaatg
180
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240
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300
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420
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480
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1380
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2760

a
2761

<210> 6190
<211> 576
<212> PRT
<213> Homo sapiens

<400> 6190
Met Ala Thr Ser Gln Ala Asp Ile Glu Thr Asp Pro Gly Ile Ser Glu
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Pro Asp Gly Ala Thr Ala Gln Thr Ser Ala Asp Gly Ser Gln Ala Gln
20 25 30
Asn Leu Glu Ser Arg Thr Ile Ile Arg Gly Lys Arg Thr Arg Lys Ile
35 40 45
Asn Asn Leu Asn Val Glu Glu Asn Ser Ser Gly Asp Gln Arg Arg Ala
50 55 60
Pro Leu Ala Ala Gly Thr Trp Arg Ser Ala Pro Val Pro Val Thr Thr
65 70 75 80
Gln Asn Pro Pro Gly Ala Pro Pro Asn Val Leu Trp Gln Thr Pro Leu
85 90 95
Ala Trp Gln Asn Pro Ser Gly Trp Gln Asn Gln Thr Ala Arg Gln Thr
100 105 110
Pro Pro Ala Arg Gln Ser Pro Pro Ala Arg Gln Thr Pro Pro Ala Trp
115 120 125
Gln Thr Gln Asn Pro Val Ala Trp Gln Asn Pro Val Ile Trp Pro Asn
130 135 140
Pro Val Ile Trp Gln Asn Pro Val Ile Trp Pro Asn Pro Ile Val Trp
145 150 155 160
Pro Gly Pro Val Val Trp Pro Asn Pro Leu Ala Trp Gln Asn Pro Pro
165 170 175
Gly Trp Gln Thr Pro Pro Gly Trp Gln Thr Pro Pro Gly Trp Gln Gly
180 185 190
Pro Pro Asp Trp Gln Gly Pro Pro Asp Trp Pro Leu Pro Pro Asp Trp
195 200 205
Pro Leu Pro Pro Asp Trp Pro Leu Pro Thr Asp Trp Pro Leu Pro Pro
210 215 220
Asp Trp Ile Pro Ala Asp Trp Pro Ile Pro Pro Asp Trp Gln Asn Leu
225 230 235 240
Arg Pro Ser Pro Asn Leu Arg Pro Ser Pro Asn Ser Arg Ala Ser Gln
245 250 255
Asn Pro Gly Ala Ala Gln Pro Arg Asp Val Ala Leu Leu Gln Glu Arg
260 265 270
Ala Asn Lys Leu Val Lys Tyr Leu Met Leu Lys Asp Tyr Thr Lys Val
275 280 285
Pro Ile Lys Arg Ser Glu Met Leu Arg Asp Ile Ile Arg Glu Tyr Thr
290 295 300
Asp Val Tyr Pro Glu Ile Ile Glu Arg Ala Cys Phe Val Leu Glu Lys
305 310 315 320
Lys Phe Gly Ile Gln Leu Lys Glu Ile Asp Lys Glu Glu His Leu Tyr
325 330 335
Ile Leu Ile Ser Thr Pro Glu Ser Leu Ala Gly Ile Leu Gly Thr Thr
340 345 350
Lys Asp Thr Pro Lys Leu Gly Leu Leu Val Ile Leu Gly Val Ile

355	360	365
Phe Met Asn Gly Asn Arg Ala Ser Glu Ala Val Leu Trp Glu Ala Leu		
370	375	380
Arg Lys Met Gly Leu Arg Pro Gly Val Arg His Pro Leu Leu Gly Asp		
385	390	395
Leu Arg Lys Leu Leu Thr Tyr Glu Phe Val Lys Gln Lys Tyr Leu Asp		
405	410	415
Tyr Arg Arg Val Pro Asn Ser Asn Pro Pro Glu Tyr Glu Phe Leu Trp		
420	425	430
Gly Leu Arg Ser Tyr His Glu Thr Ser Lys Met Lys Val Leu Arg Phe		
435	440	445
Ile Ala Glu Val Gln Lys Arg Asp Pro Arg Asp Trp Thr Ala Gln Phe		
450	455	460
Met Glu Ala Ala Asp Glu Ala Leu Asp Ala Leu Asp Ala Ala Ala		
465	470	475
Glu Ala Glu Ala Arg Ala Glu Ala Arg Thr Arg Met Gly Ile Gly Asp		
485	490	495
Glu Ala Val Ser Gly Pro Trp Ser Trp Asp Asp Ile Glu Phe Glu Leu		
500	505	510
Leu Thr Trp Asp Glu Glu Gly Asp Phe Gly Asp Pro Trp Ser Arg Ile		
515	520	525
Pro Phe Thr Phe Trp Ala Arg Tyr His Gln Asn Ala Arg Ser Arg Phe		
530	535	540
Pro Gln Thr Phe Ala Gly Pro Ile Ile Gly Pro Gly Gly Thr Ala Ser		
545	550	555
Ala Asn Phe Ala Ala Asn Phe Gly Ala Ile Gly Phe Phe Trp Val Glu		
565	570	575

<210> 6191
<211> 3021
<212> DNA
<213> Homo sapiens

<400> 6191
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gcATGAAAAG tcCTGGAATC tCTCAGAGAT gAACCTGTGT atGGGAGTTT tgCTTAAGTG
120
gtACTTCAAG aAGGTGCCTC tgTTTACTTT ggTTTGCAC tgCCATGCGA ccAGGTTGGTG
180
caggTCTCCC aaATGCCACC CCCCTCCAAG ctTCCCTCTT tgCTCTAAgT cCTCAGGCCT
240
cCTGGGCTG ggACAGATGG ttGTTTGTGT catCAGGACT cGTGGGGTTC tatGCGTGG
300
gcACTCACCG cAGCCTAAgC tGGGATCCC gCTCAGAGGT cAGGCCATGT tGGGATGTT
360
aggGAAGGTG atGCATTATC aggAGACATA tCTACTGTCC CCTGCCCTGT acCCCCAGGC
420
atTgATCTGG agAACATTGT gtACTACAAG gACGACACCC ACTACTTTGT gATGACAGCC
480
aAGAAGCAGT gcCTGCTGCG gCTGGGGGTG ctGCGCCAGG ACTGGCCAGA caccaATCGG
540
ctGCTGGGCA gtGCCAATGT gGTGACCGAG gCTCTGCAGC gCTTACCCG gGCAGCTGCT
600

gactttgcca cccatggcaa gctcgggaaa ctagagtttgc cccaggatgc ccatgggcag
660
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720
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1140
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1620
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1800
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<210> 6192
 <211> 815
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Arg Leu Gly Val Leu Arg Gln Asp Trp Pro Asp Thr Asn Arg Leu Leu
 50 55 60
 Gly Ser Ala Asn Val Val Thr Glu Ala Leu Gln Arg Phe Thr Arg Ala
 65 70 75 80
 Ala Ala Asp Phe Ala Thr His Gly Lys Leu Gly Lys Leu Glu Phe Ala
 85 90 95
 Gln Asp Ala His Gly Gln Pro Asp Val Ser Ala Phe Asp Phe Thr Ser
 100 105 110
 Met Met Arg Ala Glu Ser Ser Ala Arg Val Gln Glu Lys His Gly Ala
 115 120 125
 Arg Leu Leu Leu Gly Leu Val Gly Asp Cys Leu Val Glu Pro Phe Trp
 130 135 140
 Pro Leu Gly Thr Gly Val Ala Arg Gly Phe Leu Ala Ala Phe Asp Ala

145	150	155	160
Ala Trp Met Val Lys Arg Trp Ala Glu Gly Ala Glu Ser Leu Glu Val			
165	170	175	
Leu Ala Glu Arg Glu Ser Leu Tyr Gln Leu Leu Ser Gln Thr Ser Pro			
180	185	190	
Glu Asn Met His Arg Asn Val Ala Gln Tyr Gly Leu Asp Pro Ala Thr			
195	200	205	
Arg Tyr Pro Asn Leu Asn Leu Arg Ala Val Thr Pro Asn Gln Val Arg			
210	215	220	
Asp Leu Tyr Asp Val Leu Ala Lys Glu Pro Val Gln Arg Asn Asn Asp			
225	230	235	240
Lys Thr Asp Thr Gly Met Pro Ala Thr Gly Ser Ala Gly Thr Gln Glu			
245	250	255	
Glu Leu Leu Arg Trp Cys Gln Glu Gln Thr Ala Gly Tyr Pro Gly Val			
260	265	270	
His Val Ser Asp Leu Ser Ser Trp Ala Asp Gly Leu Ala Leu Cys			
275	280	285	
Ala Leu Val Tyr Arg Leu Gln Pro Gly Leu Leu Glu Pro Ser Glu Leu			
290	295	300	
Gln Gly Leu Gly Ala Leu Glu Ala Thr Ala Trp Ala Leu Lys Val Ala			
305	310	315	320
Glu Asn Glu Leu Gly Ile Thr Pro Val Val Ser Ala Gln Ala Val Val			
325	330	335	
Ala Gly Ser Asp Pro Leu Gly Leu Ile Ala Tyr Leu Ser His Phe His			
340	345	350	
Ser Ala Phe Lys Ser Met Ala His Ser Pro Gly Pro Val Ser Gln Ala			
355	360	365	
Ser Pro Gly Thr Ser Ser Ala Val Leu Phe Leu Ser Lys Leu Gln Arg			
370	375	380	
Thr Leu Gln Arg Ser Arg Ala Lys Asp Leu Leu Gln Glu Asn Ala Glu			
385	390	395	400
Asp Ala Gly Gly Lys Leu Arg Leu Glu Met Glu Ala Glu Thr Pro			
405	410	415	
Ser Thr Glu Val Pro Pro Asp Pro Glu Pro Gly Val Pro Leu Thr Pro			
420	425	430	
Pro Ser Gln His Gln Glu Ala Gly Ala Gly Asp Leu Cys Ala Leu Cys			
435	440	445	
Gly Glu His Leu Tyr Val Leu Glu Arg Leu Cys Val Asn Gly His Phe			
450	455	460	
Phe His Arg Ser Cys Phe Arg Cys His Thr Cys Glu Ala Thr Leu Trp			
465	470	475	480
Pro Gly Gly Tyr Glu Gln His Pro Gly Asp Gly His Phe Tyr Cys Leu			
485	490	495	
Gln His Leu Pro Gln Thr Asp His Lys Ala Glu Gly Ser Asp Arg Gly			
500	505	510	
Pro Glu Ser Pro Glu Leu Pro Thr Pro Ser Glu Asn Ser Met Pro Pro			
515	520	525	
Gly Leu Ser Thr Pro Thr Ala Ser Gln Glu Gly Ala Gly Pro Val Pro			
530	535	540	
Asp Pro Ser Gln Pro Thr Arg Arg Gln Ile Arg Leu Ser Ser Pro Glu			
545	550	555	560
Arg Gln Arg Leu Ser Ser Leu Asn Leu Thr Pro Asp Pro Glu Met Glu			
565	570	575	
Pro Pro Pro Lys Pro Pro Arg Ser Cys Ser Ala Leu Ala Arg His Ala			

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Ser	Ser	Phe
Phe	Val	Gly
Val	Gly	Trp
Gly	Leu	Pro
Leu	Pro	Val
Pro	Val	Gln
Gln	Ser	Pro
Pro	Gln	
595	600	605
Ala	Leu	Val
Ala	Met	Glu
Glu	Lys	Glu
Glu	Lys	Glu
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Glu	Glu	Glu
Glu	Glu	Asp
Asp	Val	Pro
Val	Leu	Asp
Asp	Ser	Asp
Asp	Val	Glu
Glu	Gln	Ala
625	630	635
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Leu	Gln	Thr
Thr	Phe	Ala
Ala	Lys	Thr
Thr	Ser	Gly
Gly	Thr	Met
Met	Asn	Asn
Asn	Tyr	Pro
Tyr	Pro	Thr
645	650	655
Trp	Arg	Arg
Arg	Thr	Leu
Leu	Arg	Arg
Arg	Ala	Lys
Lys	Glu	Glu
Glu	Glu	Met
Met	Lys	Arg
660	665	670
Phe	Cys	Lys
Lys	Ala	Gln
Gln	Thr	Ile
Ile	Gln	Arg
Arg	Arg	Leu
Leu	Asn	Glu
Glu	Ile	Glu
675	680	685
Ala	Leu	Arg
Arg	Glu	Leu
Glu	Ala	Glu
Glu	Gly	Val
Val	Lys	Leu
Leu	Glu	Leu
Leu	Ala	Leu
690	695	700
Arg	Arg	Gln
Gln	Ser	Ser
Ser	Pro	Glu
Gln	Gln	Lys
Lys	Lys	Leu
Leu	Trp	Val
705	710	715
720		
Gln	Leu	Leu
Leu	Gln	Leu
Leu	Val	Asp
Asp	Lys	Lys
Lys	Asn	Ser
Ser	Leu	Val
Leu	Ala	Glu
Glu	Glu	
725	730	735
Ala	Glu	Leu
Leu	Met	Ile
Ile	Thr	Val
Val	Gln	Glu
Glu	Leu	Asn
Asn	Leu	Glu
Glu	Glu	Lys
Lys	Gln	
740	745	750
Trp	Gln	Leu
Leu	Asp	Gln
Gln	Glu	Leu
Leu	Arg	Gly
Gly	Tyr	Met
Met	Asn	Arg
Arg	Glu	Glu
Glu	Asn	
755	760	765
Leu	Lys	Thr
Thr	Ala	Ala
Ala	Asp	Arg
Arg	Gln	Ala
Ala	Glu	Asp
Gln	Asp	Gln
Val	Leu	Arg
Arg	Lys	
770	775	780
Leu	Val	Asp
Asp	Leu	Val
Leu	Asn	Gln
Gln	Arg	Asp
Asp	Ala	Leu
Leu	Ile	Arg
Ile	Arg	Phe
Phe	Gln	Glu
785	790	795
800		
Glu	Arg	Arg
Arg	Leu	Ser
Ser	Glu	Leu
Leu	Ala	Leu
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Ala	Gln	Gly
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<210> 6193
<211> 2893
<212> DNA
<213> Homo sapiens

<400> 6193
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120
catTCATTTT tttagAACAT CCTTCAAAGA GTTCATGCAt CTTACTGAGG ACACCTGACC
180
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240
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300
atGAACACCC atAGAGCTAT agaatcaaAC AGCCAGACTT CCCCTCTCAA TGCAGAGGTA
360
360
gtccCAGTATG CCAAAGAAGT AGTGGATTc AGTCCCATT ATGGAAGTGA GAAATAGTATG
420
420
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480
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540

ttgccattca agaggacgcc acctaatttt cagagccagg actatgtgga acttacttt
600
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660
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720
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780
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840
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900
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1020
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1680
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2160

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 2760
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 <211> 621
 <212> PRT
 <213> Homo sapiens

<400> 6194
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 Asn Thr His Arg Ala Ile Glu Ser Asn Ser Gln Thr Ser Pro Leu Asn
 35 40 45
 Ala Glu Val Val Gln Tyr Ala Lys Glu Val Val Asp Phe Ser Ser His
 50 55 60
 Tyr Gly Ser Glu Asn Ser Met Ser Tyr Thr Met Trp Asn Leu Ala Gly
 65 70 75 80
 Val Pro Asn Val Phe Pro Ser Ser Gly Asp Phe Thr Gln Thr Ala Val
 85 90 95
 Phe Arg Thr Tyr Gly Thr Trp Trp Asp Gln Cys Pro Ser Ala Ser Leu
 100 105 110
 Pro Phe Lys Arg Thr Pro Pro Asn Phe Gln Ser Gln Asp Tyr Val Glu
 115 120 125
 Leu Thr Phe Glu Gln Gln Val Tyr Pro Thr Ala Val His Val Leu Glu
 130 135 140
 Thr Tyr His Pro Gly Ala Val Ile Arg Ile Leu Ala Cys Ser Ala Asn
 145 150 155 160
 Pro Tyr Ser Pro Asn Pro Ala Glu Val Arg Trp Glu Ile Leu Trp

	165	170	175
Ser	Glu Arg Pro Thr Lys Val Asn Ala Ser Gln Ala Arg Gln Phe Lys		
	180	185	190
Pro	Cys Ile Lys Gln Ile Asn Phe Pro Thr Asn Leu Ile Arg Leu Glu		
	195	200	205
Val	Asn Ser Ser Leu Leu Glu Tyr Tyr Glu Leu Asp Ala Val Val		
	210	215	220
Leu	His Gly Val Lys Asp Lys Pro Val Leu Ser Leu Lys Thr Ser Leu		
	225	230	235
Ile	Asp Met Asn Asp Ile Glu Asp Asp Ala Tyr Ala Glu Lys Asp Gly		
	245	250	255
Cys	Gly Met Asp Ser Leu Asn Lys Lys Phe Ser Ser Ala Val Leu Gly		
	260	265	270
Glu	Gly Pro Asn Asn Gly Tyr Phe Asp Lys Leu Pro Tyr Glu Leu Ile		
	275	280	285
Gln	Leu Ile Leu Asn His Leu Thr Leu Pro Asp Leu Cys Arg Leu Ala		
	290	295	300
Gln	Thr Cys Lys Leu Leu Ser Gln His Cys Cys Asp Pro Leu Gln Tyr		
	305	310	315
Ile	His Leu Asn Leu Gln Pro Tyr Trp Ala Lys Leu Asp Asp Thr Ser		
	325	330	335
Leu	Glu Phe Leu Gln Ser Arg Cys Thr Leu Val Gln Trp Leu Asn Leu		
	340	345	350
Ser	Trp Thr Gly Asn Arg Gly Phe Ile Ser Val Ala Gly Phe Ser Arg		
	355	360	365
Phe	Leu Lys Val Cys Gly Ser Glu Leu Val Arg Leu Glu Leu Ser Cys		
	370	375	380
Ser	His Phe Leu Asn Glu Thr Cys Leu Glu Val Ile Ser Glu Met Cys		
	385	390	395
Pro	Asn Leu Gln Ala Leu Asn Leu Ser Ser Cys Asp Lys Leu Pro Pro		
	405	410	415
Gln	Ala Phe Asn His Ile Ala Lys Leu Cys Ser Leu Lys Arg Leu Val		
	420	425	430
Leu	Tyr Arg Thr Lys Val Glu Gln Thr Ala Leu Leu Ser Ile Leu Asn		
	435	440	445
Phe	Cys Ser Glu Leu Gln His Leu Ser Leu Gly Ser Cys Val Met Ile		
	450	455	460
Glu	Asp Tyr Asp Val Ile Ala Ser Met Ile Gly Ala Lys Cys Lys Lys		
	465	470	475
Leu	Arg Thr Leu Asp Leu Trp Arg Cys Lys Asn Ile Thr Glu Asn Gly		
	485	490	495
Ile	Ala Glu Leu Ala Ser Gly Cys Pro Leu Leu Glu Glu Leu Asp Leu		
	500	505	510
Gly	Trp Cys Pro Thr Leu Gln Ser Ser Thr Gly Cys Phe Thr Arg Leu		
	515	520	525
Ala	His Gln Leu Pro Asn Leu Gln Lys Leu Phe Leu Thr Ala Asn Arg		
	530	535	540
Ser	Val Cys Asp Thr Asp Ile Asp Glu Leu Ala Cys Asn Cys Thr Arg		
	545	550	555
Leu	Gln Gln Leu Asp Ile Leu Gly Thr Arg Met Val Ser Pro Ala Ser		
	565	570	575
Leu	Arg Lys Leu Leu Glu Ser Cys Lys Asp Leu Ser Leu Leu Asp Val		
	580	585	590
Ser	Phe Cys Ser Gln Ile Asp Asn Arg Ala Val Leu Glu Leu Asn Ala		

595	600	605
Ser Phe Pro Lys Val Phe Ile Lys Lys Ser Phe Thr Gln		
610	615	620

<210> 6195
<211> 518
<212> DNA
<213> Homo sapiens

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120
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180
acatccaaat ttttcaactgg cacagaaatg gtgttacatc cactgggaac aaacctgcat
240
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300
cacgccccatca ttttgctttt tccatagtca cttattaagc acaaactatg ccaaaaacta
360
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420
tgagcggagt gggcagccct gcctgggagc tccagcctcc tgccacccacg tgcccccttg
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518

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<211> 117
<212> PRT
<213> Homo sapiens

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20 25 30
Leu Leu Leu Ser Arg Thr Thr Arg Val Lys Pro His Pro Tyr Lys Tyr
35 40 45
Gln Val His Pro Asn Ser Ser Leu Ala Gln Lys Trp Cys Tyr Ile His
50 55 60
Trp Glu Gln Thr Cys Ile Pro Thr Pro Arg His Val Thr Thr Gly Thr
65 70 75 80
Ala Asn Glu Leu Cys Pro Gly Asn Ser Phe Thr Pro Ser Ser Cys Ser
85 90 95
Phe His Ser His Leu Leu Ser Thr Asn Tyr Ala Lys Asn Tyr Val Gln
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His Arg Thr Gly Trp
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<210> 6197
<211> 2841

<212> DNA

<213> Homo sapiens

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120
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180
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240
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300
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360
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420
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660
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2100
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2160
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2700
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2841

<210> 6198
<211> 124
<212> PRT
<213> Homo sapiens

<400> 6198
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Phe His Arg Arg Ser Gln Arg Val Thr Lys Gly Ser Pro Gly Pro Gly
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Ser Ser Gln His His Gly Leu Asn Thr His Trp Ala Pro Thr Leu Gly
35 40 45
Pro Gly Trp Gly Met Trp Gly Gln Glu Ala Ala Gln Ser Gly Arg Gln
50 55 60
Arg Glu Lys Cys Val Gln Arg Ala Pro Ile Ser Gly Cys Asn Val Val
65 70 75 80
Leu Arg Leu Trp Leu Gly Ser Ala Ser Arg Val Ser Tyr Val Leu Cys
85 90 95
Ser Tyr Phe Leu Ser Pro Thr Leu Pro Cys Arg Asn Pro Ser Glu Tyr
100 105 110
Val Ala Thr Ile Leu Glu Leu Ser Ala Leu Ile Val
115 120

<210> 6199

<211> 1777

<212> DNA

<213> Homo sapiens

<400> 6199
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120
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240
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300
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960

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 1777

<210> 6200
 <211> 164
 <212> PRT
 <213> Homo sapiens

<400> 6200
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 20 25 30
 Pro Pro Lys Pro Asp Cys Gln Gln Lys Pro Ser Pro Ser Glu Gly Gln
 35 40 45
 Val Gly Val Pro Xaa Arg Ser Pro His Pro Gln Gly Gly Phe Thr His
 50 55 60
 Cys Pro Val Pro Gly Met Pro Gly Gly Arg Pro Leu Cys Cys Cys His
 65 70 75 80
 Cys Cys Gln His Cys Pro Ala Cys Glu Ala Arg Arg Ser Pro Cys Pro
 85 90 95
 Thr Arg Cys Cys Cys Ser Ser Asp Pro Cys Cys Glu Glu Trp Asp Ser
 100 105 110
 Trp Ser Lys Lys Leu Val Phe Leu Phe Cys Ile Asn Glu Lys Asn Pro
 115 120 125
 Gly Glu Ala Ala Thr Leu Pro Ser Gln Arg Asp Ala Leu Pro Cys Phe
 130 135 140
 Gly Val Leu Ser Pro Phe Pro Pro Leu Val Gln Gly Gln Pro Ser Arg

145	150	155	160
Ser	Ser	Trp	Phe

<210> 6201
<211> 604
<212> DNA
<213> Homo sapiens

<400> 6201
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180
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300
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360
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420
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480
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600
gcgg
604

<210> 6202
<211> 124
<212> PRT
<213> Homo sapiens

<400> 6202
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Pro Ser Asp Arg Met Arg Asp Arg Asn Ala Gln Gln Arg Ala Ile Gln
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Gly Gln Trp Thr Leu Gly Arg Gly Ala Glu Trp Ala Ala Leu Arg Arg
35 40 45
Ala Gly Leu Arg Gly Cys Arg Glu Glu Phe Gly Gly Lys Gly Gln Pro
50 55 60
Gln Ser Leu Ser Cys Ala Ser Trp Glu Arg Gly Met Thr Gly Arg His
65 70 75 80
Thr Asn Val Ser Gln Gly Arg Trp Ala Trp Gly His Arg Ala Pro Arg
85 90 95
Gly Gly Ser Gly Glu Gly Glu Pro Ala Glu Glu Arg Pro Gly Arg Ala
100 105 110
Gly Asp His Ala Gly Ala Gln Gly Glu Arg Gln Asp

115

120

<210> 6203
<211> 3462
<212> DNA
<213> Homo sapiens

<400> 6203
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120 gacggattgg gaggtttgtc tacagatttt gagcgttcga agttgacccc tgactaagta
180 tactttgctg ctccccctcagc ctttgaaaaa atgtctgtca catatgtga ttccgttggaa
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480 gagagggtga gcgagctgca cctcgaggtg aaggcctcac tcatgtacgaa tgacttcgag
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 3060
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<210> 6204

<211> 486

<212> PRT

<213> Homo sapiens

<400> 6204
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 Asp Gly His Arg Leu Cys Ser Asp Leu Met Asn Cys Leu His Glu Arg
 35 40 45
 Ala Arg Ile Glu Lys Ala Tyr Ala Gln Gln Leu Thr Glu Trp Ala Arg
 50 55 60
 Arg Trp Arg Gln Leu Val Glu Lys Gly Pro Gln Tyr Gly Thr Val Glu
 65 70 75 80
 Lys Ala Trp Met Ala Phe Met Ser Glu Ala Glu Arg Val Ser Glu Leu
 85 90 95
 His Leu Glu Val Lys Ala Ser Leu Met Asn Asp Asp Phe Glu Lys Ile
 100 105 110
 Lys Asn Trp Gln Lys Glu Ala Phe His Lys Gln Met Met Gly Gly Phe
 115 120 125
 Lys Glu Thr Lys Glu Ala Glu Asp Gly Phe Arg Lys Ala Gln Lys Pro
 130 135 140
 Trp Ala Lys Lys Leu Lys Glu Val Glu Ala Ala Lys Lys Ala His His
 145 150 155 160
 Ala Ala Cys Lys Glu Glu Lys Leu Ala Ile Ser Arg Glu Ala Asn Ser
 165 170 175
 Lys Ala Asp Pro Ser Leu Asn Pro Glu Gln Leu Lys Lys Leu Gln Asp
 180 185 190
 Lys Ile Glu Lys Cys Lys Gln Asp Val Leu Lys Thr Lys Glu Lys Tyr
 195 200 205
 Glu Lys Ser Leu Lys Glu Leu Asp Gln Gly Thr Pro Gln Tyr Met Glu
 210 215 220
 Asn Met Glu Gln Val Phe Glu Gln Cys Gln Gln Phe Glu Glu Lys Arg
 225 230 235 240
 Leu Arg Phe Phe Arg Glu Val Leu Leu Glu Val Gln Lys His Leu Asp

245	250	255
Leu Ser Asn Val Ala Gly Tyr Lys Ala Ile Tyr His Asp Leu Glu Gln		
260	265	270
Ser Ile Arg Ala Ala Asp Ala Val Glu Asp Leu Arg Trp Phe Arg Ala		
275	280	285
Asn His Gly Pro Gly Met Ala Met Asn Trp Pro Gln Phe Glu Glu Trp		
290	295	300
Ser Ala Asp Leu Asn Arg Thr Leu Ser Arg Arg Glu Lys Lys Lys Ala		
305	310	315
Thr Asp Gly Val Thr Leu Thr Gly Ile Asn Gln Thr Gly Asp Gln Ser		
325	330	335
Leu Pro Ser Lys Pro Ser Ser Thr Leu Asn Val Pro Ser Asn Pro Ala		
340	345	350
Gln Ser Ala Gln Ser Gln Ser Ser Tyr Asn Pro Phe Glu Asp Glu Asp		
355	360	365
Asp Thr Gly Ser Thr Val Ser Glu Lys Asp Asp Thr Lys Ala Lys Asn		
370	375	380
Val Ser Ser Tyr Glu Lys Thr Gln Ser Tyr Pro Thr Asp Trp Ser Asp		
385	390	395
Asp Glu Ser Asn Asn Pro Phe Ser Ser Thr Asp Ala Asn Gly Asp Ser		
405	410	415
Asn Pro Phe Asp Asp Asp Ala Thr Ser Gly Thr Glu Val Arg Val Arg		
420	425	430
Ala Leu Tyr Asp Tyr Glu Gly Gln Glu His Asp Glu Leu Ser Phe Lys		
435	440	445
Ala Gly Asp Glu Leu Thr Lys Met Glu Asp Glu Asp Glu Gln Gly Trp		
450	455	460
Cys Lys Gly Arg Leu Asp Asn Gly Gln Val Gly Leu Tyr Pro Ala Asn		
465	470	475
Tyr Val Glu Ala Ile Gln		
485		

<210> 6205
<211> 926
<212> DNA
<213> Homo sapiens

<400> 6205
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 900
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 926

<210> 6206
<211> 92
<212> PRT
<213> Homo sapiens

<400> 6206
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20 25 30
Arg Glu Gly Lys Glu Phe Ala Asp Ser Gln Lys Leu Leu Phe Met Glu
35 40 45
Thr Ser Ala Lys Leu Asn His Gln Val Ser Glu Val Phe Asn Thr Val
50 55 60
Ala Gln Glu Leu Leu Gln Arg Ser Asp Glu Glu Gly Gln Ala Leu Xaa
65 70 75 80
Gly Glu Asp Thr Pro Cys Leu Gly His Gly Gln Leu
85 90

<210> 6207
<211> 1384
<212> DNA
<213> Homo sapiens

<400> 6207
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120
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 1384

<210> 6208
 <211> 290
 <212> PRT
 <213> Homo sapiens

<400> 6208
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 35 40 45
 Ser Ala Ala Ala Thr Val Arg Glu Ala Gln Gly Leu Met Ala Gly Gly
 50 55 60
 Phe Leu Cys Phe Ser Leu Ala Phe Xaa Ala Gln Val Gln Val Val Phe
 65 70 75 80
 Trp Arg Leu His Ser Pro Thr Gln Val Glu Asp Ala Met Leu Asp Thr

85	90	95
Tyr Asp Leu Val Tyr Glu Gln Ala Met	Lys Gly Thr Ser His	Val Arg
100	105	110
Arg Gln Glu Leu Ala Ala Ile Gln Asp Val Phe	Leu Cys Cys Gly Lys	
115	120	125
Lys Ser Pro Phe Ser Arg Leu Gly Ser Thr Glu Ala Asp	Leu Cys Gln	
130	135	140
Gly Glu Glu Ala Ala Arg Glu Asp Cys	Leu Gln Gly Ile Arg Ser Phe	
145	150	155
Leu Arg Thr His Gln Gln Val Ala Ser Ser	Leu Thr Ser Ile Gly Leu	
165	170	175
Ala Leu Thr Val Ser Ala Leu Leu Phe Ser Ser Phe	Leu Trp Phe Ala	
180	185	190
Ile Arg Cys Gly Cys Ser Leu Asp Arg Lys	Gly Lys Tyr Thr Leu Thr	
195	200	205
Pro Arg Ala Cys Gly Arg Gln Pro Gln Glu Pro	Ser Leu Leu Arg Cys	
210	215	220
Ser Gln Gly Pro Thr His Cys Leu His Ser Glu Ala	Val Ala Ile	
225	230	235
Gly Pro Arg Gly Cys Ser Gly Ser Leu Arg Trp	Leu Gln Glu Ser Asp	
245	250	255
Ala Ala Pro Leu Pro Leu Ser Cys His Leu Ala Ala His	Arg Ala Leu	
260	265	270
Gln Gly Arg Ser Arg Gly Leu Ser Gly Cys Pro	Glu Arg Gly Leu	
275	280	285
Ser Asp		
290		

<210> 6209

<211> 2269

<212> DNA

<213> Homo sapiens

<400> 6209

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<211> 165
<212> PRT
<213> Homo sapiens

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Ser Pro Ser Leu Arg Gly Thr His Leu Leu Phe Leu Pro Gln Ala Asp
35 40 45
Val Val Asp Glu Ala Ile Asp Ser Leu Ala Arg Thr Lys Gly Val Met
50 55 60
Lys Pro Pro Cys Ser Glu Gly Ser Pro Trp Arg Cys Pro His Phe Thr
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Cys Trp Val Leu Gln Ala Arg Lys Pro Gly Ser Gly Gly Thr Arg Glu
85 90 95
Arg Gln Ala Cys Val Trp Thr Ser Ala Gly Ala Ala Leu Arg Leu
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Ala Arg Glu Arg Gln Arg Trp Val Phe Arg Phe His Ala Tyr Val Trp
115 120 125
Ala His Ser Gln His Gly Arg Val Ser Ala Val Leu Val Leu Thr Leu
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<210> 6211
<211> 2163
<212> DNA
<213> Homo sapiens

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 2163

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 <212> PRT
 <213> Homo sapiens

<400> 6212
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 35 40 45
 Ala Phe Glu Gly Ser Tyr Leu Glu Asp Thr Gln Met Tyr Gly Asn Ile
 50 55 60
 Ile Arg Gly Trp Xaa Ser Val Ser Asp Gln Pro Xaa Lys Asn Ser Asn
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 Ser Lys Asn Asp Arg Arg Asn Arg Lys Phe Lys Glu Ala Glu Arg Leu
 85 90 95
 Phe Ser Lys Ser Ser Val Thr Ser Ala Ala Ala Val Ser Ala Leu Ala
 100 105 110
 Gly Val Gln Asp Gln Leu Ile Glu Lys Arg Glu Pro Gly Ser Gly Thr
 115 120 125
 Glu Ser Asp Thr Ser Pro Asp Phe His Asn Gln Glu Asn Glu Pro Ser
 130 135 140
 Gln Glu Asp Pro Glu Asp Leu Asp Gly Ser Val Gln Gly Val Lys Pro
 145 150 155 160
 Gln Lys Ala Ala Ser Ser Thr Ser Ser Gly Ser His His Ser Ser His
 165 170 175
 Lys Lys Arg Lys Asn Lys Asn Arg His Ser Pro Ser Gly Met Phe Asp
 180 185 190
 Tyr Asp Phe Glu Ile Asp Leu Lys Leu Asn Lys Lys Pro Arg Ala Asp
 195 200 205
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<210> 6213
 <211> 1160
 <212> DNA
 <213> Homo sapiens

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 <211> 101
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Pro Pro Pro Pro Pro Thr Pro Pro Pro Thr Cys Ile Ala Gln Ile Gln
 50 55 60
 Val Met Met Glu Gln Ile Arg Pro Trp His Ser Arg Met Lys Arg Arg
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 Lys Gly Val Met Glu Gln Ser Leu Glu Pro Ala Ala Ser Ser Gly
 85 90 95
 Pro Leu Pro Thr Asp
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<210> 6215
<211> 651
<212> DNA
<213> Homo sapiens

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<210> 6216
<211> 87
<212> PRT
<213> Homo sapiens

<400> 6216
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20 25 30
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35 40 45
Leu Gln Glu Ser Asp Ala Ala Pro Leu Pro Leu Ser Cys His Leu Ala
50 55 60
Ala His Arg Ala Leu Gln Gly Arg Ser Arg Gly Gly Leu Ser Gly Cys
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<210> 6217
<211> 2955
<212> DNA
<213> Homo sapiens

<400> 6217

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<211> 133
<212> PRT
<213> Homo sapiens

<400> 6218
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Ala Gln Leu Ser His Cys Lys Ser Leu Gly His Phe Glu Asn Leu Gln			
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Lys Tyr Lys Ala Ala Lys Asn Pro Ser Pro Thr Thr Arg Pro Val Ser			
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Arg Arg Cys Ala Ile Asn Ala Arg Asn Ala Leu Thr Ala Leu Phe Thr			
85	90	95	
Ser Ser Gly Arg Pro Pro Ser Gln Pro Asn Thr Gln Asp Lys Thr Pro			
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<210> 6219
<211> 2495
<212> DNA
<213> Homo sapiens

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<211> 179
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35 40 45
Gly Gly Pro Ala Pro Ser Pro Gln Xaa Tyr Ile His Asp Ser Pro Ser
50 55 60
Cys Trp Pro Trp Thr Lys Ala Gly Ser Ser Xaa Cys Pro Val Arg Ser
65 70 75 80
Pro Tyr Ser Pro Pro Ala Ala Arg Pro Gly Pro Gly Xaa Pro Leu Trp
85 90 95
Cys Gln Arg Val Ser Gln Asn Pro Gly Pro Ser Pro Ser Xaa Gly Pro
100 105 110
Leu Pro Ser Pro Arg Pro Val Cys Trp Asp Gly Ala Ser Thr Leu Arg
115 120 125
Leu Val Lys Ala Glu Leu Asn Ser Ser Asn Glu Ser Ala Gly Trp Ala
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Trp Gly Asp Gly Glu Gln Ala Pro Pro Arg Ala Ser Ser Glu Gly Gly
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Gly Ala Gly

<210> 6221
<211> 1487
<212> DNA
<213> Homo sapiens

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 1380
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<210> 6222
 <211> 330
 <212> PRT
 <213> Homo sapiens

<400> 6222
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 35 40 45
 Pro Thr Ser Gly Asp Glu Tyr Ser Arg Gly Phe Leu Gln Asn Leu Asn
 50 55 60
 Leu Ile Gln Asp Gln Asn Ala Gln Thr Arg Trp Lys Gln Gly Arg Tyr
 65 70 75 80
 Asp Glu Asp Gly Lys Pro Phe Asn Gln Arg Ser Leu Leu Leu Gly His
 85 90 95
 Glu Arg Ile Leu Thr Arg Ala Lys Ser Tyr Glu Cys Ser Glu Cys Gly

100	105	110
Lys Val Ile Arg Arg Lys Ala Trp Phe Asp Gln His Gln Arg Ile His		
115	120	125
Phe Leu Glu Asn Pro Phe Glu Cys Lys Val Cys Gly Gln Ala Phe Arg		
130	135	140
Gln Arg Ser Ala Leu Thr Val His Lys Gln Cys His Leu Gln Asn Lys		
145	150	155
Pro Tyr Arg Cys His Asp Cys Gly Lys Cys Phe Arg Gln Leu Ala Tyr		
165	170	175
Leu Val Glu His Lys Arg Ile His Thr Lys Glu Lys Pro Tyr Lys Cys		
180	185	190
Ser Lys Cys Glu Lys Thr Phe Ser Gln Asn Ser Thr Leu Ile Arg His		
195	200	205
Gln Val Ile His Ser Gly Glu Lys Arg His Lys Cys Leu Glu Cys Gly		
210	215	220
Lys Ala Phe Gly Arg His Ser Thr Leu Leu Cys His Gln Gln Ile His		
225	230	235
Ser Lys Pro Asn Thr His Lys Cys Ser Glu Cys Gly Gln Ser Phe Gly		
245	250	255
Arg Asn Val Asp Leu Ile Gln His Gln Arg Ile His Thr Lys Glu Glu		
260	265	270
Phe Phe Gln Cys Gly Glu Cys Gly Lys Thr Phe Ser Phe Lys Arg Asn		
275	280	285
Leu Phe Arg His Gln Val Ile His Thr Gly Ser Gln Leu Tyr Gln Cys		
290	295	300
Val Ile Cys Gly Lys Ser Phe Lys Trp His Thr Ser Phe Ile Lys His		
305	310	315
Gln Gly Thr His Lys Gly Gln Ile Ser Thr		
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<210> 6223

<211> 944

<212> DNA

<213> Homo sapiens

<400> 6223

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<210> 6224

<211> 156

<212> PRT

<213> Homo sapiens

<400> 6224
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 Ala Glu Gly His Val Gly Gln Gly Ala Pro Gly Leu Met Gly Asn Met
 35 40 45
 Asn Pro Glu Gly Val Asn His Glu Asn Gly Met Asn Arg Asp Gly
 50 55 60
 Gly Met Ile Pro Glu Gly Gly Gly Asn Gln Glu Pro Arg Gln Gln
 65 70 75 80
 Pro Gln Pro Pro Pro Glu Glu Pro Ala Gln Ala Ala Met Glu Gly Pro
 85 90 95
 Gln Pro Glu Asn Met Gln Pro Arg Thr Arg Arg Thr Lys Phe Thr Leu
 100 105 110
 Leu Gln Val Glu Glu Leu Glu Ser Val Phe Arg His Thr Gln Tyr Pro
 115 120 125
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 130 135 140
 Asp Lys Val Arg Val Ser Thr Leu Glu Lys Ala Ile
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<210> 6225

<211> 3851

<212> DNA

<213> Homo sapiens

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<210> 6226
 <211> 246
 <212> PRT
 <213> Homo sapiens

<400> 6226
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 35 40 45
 Lys Gln Ser Val Asn Arg Gly Phe Thr Lys Asp Lys Thr Leu Ser Ser
 50 55 60
 Ile Phe Asn Ile Glu Met Val Lys Glu Lys Thr Ala Glu Glu Ile Lys
 65 70 75 80
 Gln Ile Trp Gln Gln Tyr Phe Ala Ala Lys Asp Thr Val Tyr Ala Val
 85 90 95
 Ile Pro Ala Glu Lys Phe Asp Leu Ile Trp Asn Arg Ala Gln Ser Cys
 100 105 110
 Pro Thr Phe Leu Cys Ala Leu Pro Arg Arg Glu Gly Tyr Glu Phe Phe
 115 120 125
 Val Gly Gln Trp Thr Gly Thr Glu Leu His Phe Thr Ala Leu Ile Asn
 130 135 140
 Ile Gln Thr Arg Gly Glu Ala Ala Ser Gln Leu Ile Leu Tyr His
 145 150 155 160
 Tyr Pro Glu Leu Lys Glu Glu Lys Gly Ile Val Leu Met Thr Ala Glu
 165 170 175
 Met Asp Ser Thr Phe Leu Asn Val Ala Glu Ala Gln Cys Ile Ala Asn
 180 185 190
 Gln Val Gln Leu Phe Tyr Ala Thr Asp Arg Lys Glu Thr Tyr Gly Leu
 195 200 205
 Val Glu Thr Phe Asn Leu Arg Pro Asn Glu Phe Lys Tyr Met Ser Val
 210 215 220
 Ile Ala Glu Leu Glu Gln Ser Gly Leu Gly Ala Glu Leu Lys Cys Ala
 225 230 235 240
 Gln Asn Gln Asn Lys Thr

245

<210> 6227
<211> 830
<212> DNA
<213> Homo sapiens

<400> 6227
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<210> 6228
<211> 271
<212> PRT
<213> Homo sapiens

<400> 6228
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35 40 45
Ile Pro Ser Gly Thr Ile Leu Lys Ala Leu Met Glu Gly Gly Glu Asn
50 55 60
Gly Pro Trp Met Arg Phe Met Arg Ala Glu Ile Thr Ala Glu Gly Phe
65 70 75 80
Leu Arg Glu Phe Gly Arg Leu Cys Ser Glu Met Leu Lys Thr Ser Val

85	90	95
Pro Val Asp Ser Phe Phe Ser Leu Leu Thr Ser Glu Arg Val Ala Lys		
100	105	110
Gln Phe Pro Val Met Thr Glu Ala Ile Thr Gln Ile Arg Ala Lys Gly		
115	120	125
Leu Gln Thr Ala Val Leu Ser Asn Asn Phe Tyr Leu Pro Asn Gln Lys		
130	135	140
Ser Phe Leu Pro Leu Asp Arg Lys Gln Phe Asp Val Ile Val Glu Ser		
145	150	155
Cys Met Glu Gly Ile Cys Lys Pro Asp Pro Arg Ile Tyr Lys Leu Cys		
165	170	175
Leu Glu Gln Leu Gly Leu Gln Pro Ser Glu Ser Ile Phe Leu Asp Asp		
180	185	190
Leu Gly Thr Asn Leu Lys Glu Ala Ala Arg Leu Gly Ile His Thr Ile		
195	200	205
Lys Val Asn Asp Pro Glu Thr Ala Val Lys Glu Leu Glu Ala Leu Leu		
210	215	220
Gly Phe Thr Leu Arg Val Gly Val Pro Asn Thr Arg Pro Val Lys Lys		
225	230	235
Thr Met Glu Ile Pro Lys Asp Ser Leu Gln Lys Tyr Leu Lys Asp Leu		
245	250	255
Leu Gly Ile Gln Thr Thr Gly Pro Leu Glu Leu Gln Phe Asp		
260	265	270

<210> 6229

<211> 3105

<212> DNA

<213> Homo sapiens

<400> 6229

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 Val Gly Thr Glu Lys Gly Arg Met Phe Leu Asn Ala Arg Lys Glu Leu
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 Gln Ser Asp Phe Leu Arg Phe Cys Arg Gly Pro Pro Trp Lys Asp Pro
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 Pro Gly Leu Leu Ala Val Gln Gly Leu Pro Glu Gly Leu Ala Phe Arg

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Lys Gly Ser Arg Asp Cys Gly Leu His Gly Gln Ala Pro Lys Val Pro		
225	230	235
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Leu Tyr Ser Thr Ala Leu Pro Asn His Ala Ile Arg Glu Leu Lys Gln		
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Glu Ala Pro Ser Cys Pro Leu Ala Pro Ser Asp Leu Gly Leu Ser Arg		
275	280	285
Pro Met Pro Glu Pro Lys Ala Thr Gly Ala Gln Asp Phe Ser Asp Cys		
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Glu Ala Val Glu Ile Val Gly Ile Pro Asp Lys Ile Pro Phe Lys Arg		
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His Ser Ile His Phe Ile Ile Lys Arg Met Phe Asp Glu Arg Ile Phe		
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Pro Pro Glu Asp Thr Ser Ala Glu Val Ser Arg Ala Thr Val Leu Asp		
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645	650	655
Arg Asp Ser Gly Asp Pro Leu Val Asp Glu Ser Leu Lys Arg Gln Gly		
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Phe Gln Glu Asn Tyr Asp Ala Arg Leu Ser Arg Ile Asp Ile Ala Asn		
675	680	685
Thr Leu Arg Glu Gln Val Gln Asp Leu Phe Asn Lys Lys Tyr Gly Glu		
690	695	700
Ala Leu Gly Ile Lys Tyr Pro Val Gln Val Pro Tyr Lys Arg Ile Lys		
705	710	715
Ser Asn Pro Gly Ser Val Ile Ile Glu Gly Leu Pro Pro Gly Ile Pro		
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Phe Arg Lys Pro Cys Thr Phe Gly Ser Gln Asn Leu Glu Arg Ile Leu		
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Ala Val Ala Asp Lys Ile Lys Phe Thr Val Thr Arg Pro Phe Gln Gly		
755	760	765
Leu Ile Pro Lys Pro Asp Glu Asp Asp Ala Asn Arg Leu Gly Glu Lys		
770	775	780
Val Ile Leu Arg Glu Gln Val Lys Glu Leu Phe Asn Glu Lys Tyr Gly		
785	790	795
Glu Ala Leu Gly Leu Asn Arg Pro Val Leu Val Pro Tyr Lys Leu Ile		
805	810	815
Arg Asp Ser Pro Asp Ala Val Glu Val Thr Gly Leu Pro Asp Asp Ile		
820	825	830
Pro Phe Arg Asn Pro Asn Thr Tyr Asp Ile His Arg Leu Glu Lys Ile		
835	840	845
Leu Lys Ala Arg Glu His Val Arg Met Val Ile Ile Asn Gln Leu Gln		
850	855	860
Pro Phe Ala Glu Ile Cys Asn Asp Ala Lys Val Pro Ala Lys Asp Ser		
865	870	875
Ser Ile Pro Lys Arg Lys Arg Lys Arg Val Ser Glu Gly Asn Ser Val		
885	890	895
Ser Ser Ser Ser Ser Ser Ser Ser Ser Asn Pro Asp Ser		
900	905	910
Val Ala Ser Ala Asn Gln Ile Ser Leu Val Gln Trp Pro Met Tyr Met		
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<211> 471

<212> DNA

<213> Homo sapiens

<400> 6231

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 Trp Arg Arg Lys Arg Gly Pro Lys Pro Pro Val Ala Pro Ile Ser Ile
 50 55 60
 Trp Asn Gly Thr Thr Pro Arg Gly Glu Pro Pro Pro Asn His Ser Ser
 65 70 75 80
 Lys Lys Gly Thr Lys Lys Trp Ala Leu Asp Phe Ser Thr Pro Glu Thr
 85 90 95
 Gln Phe Pro Pro Pro Gly Arg Pro Phe Leu Gly Ile Pro Thr Trp Asp
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<212> PRT

<213> Homo sapiens

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 His Arg Pro Val Leu Asp Thr Leu Ala Met Leu Thr Ala His Arg Ala
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 Pro Gly Lys Glu Arg Lys Gln Asn Pro Lys His Gln Asn Glu Leu Arg
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 Ile Thr Gln Ser Ala Leu His Arg Ala Pro His Tyr Asn Ser Cys Cys
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<212> PRT
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 Gly Ala Glu Glu Gln Thr Gln Val Ala Lys Ala Ala Phe Lys Arg Phe
 65 70 75 80
 Lys Thr Leu Arg His Pro Asn Ile Leu Ala Tyr Ile Asp Gly Leu Glu
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 Thr Glu Lys Cys Leu His Val Val Thr Glu Ala Val Thr Pro Leu Gly
 100 105 110
 Ile Tyr Leu Lys Ala Arg Val Glu Ala Gly Gly Leu Lys Glu Leu Glu
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 Ile Ser Trp Gly Leu His Gln Ile Val Lys Ala Leu Ser Phe Leu Val
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 Asn Asp Cys Ser Leu Ile His Asn Asn Val Cys Met Ala Ala Val Phe
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 Val Asp Arg Ala Gly Glu Trp Lys Leu Gly Leu Asp Tyr Met Tyr
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 Ser Ala Gln Gly Asn Gly Gly Pro Pro Arg Lys Gly Ile Pro Glu
 180 185 190
 Leu Glu Gln Tyr Asp Pro Pro Glu Leu Ala Asp Ser Ser Gly Arg Val
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 Trp Glu Val Phe Asn Gly Pro Leu Pro Arg Ala Ala Leu Arg Asn

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Cys Arg Ala Pro Gly Gly Phe Met Ser Asn Arg Phe Val Glu Thr Asn			
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Leu Phe Leu Glu Glu Ile Gln Ile Lys Glu Pro Ala Glu Lys Gln Lys			
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Phe Phe Gln Glu Leu Ser Lys Ser Leu Asp Ala Phe Pro Glu Asp Phe			
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Cys Arg His Lys Val Leu Pro Gln Leu Leu Thr Ala Phe Glu Phe Gly			
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Leu Ser Ala Glu Glu Tyr Gln Gln Lys Ile Ile Pro Val Val Val Lys			
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Met Phe Ser Ser Thr Asp Arg Ala Met Arg Ile Arg Leu Leu Gln Gln			
370	375	380	
Met Glu Gln Phe Ile Gln Tyr Leu Asp Glu Pro Thr Val Asn Thr Gln			
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Arg Glu Gln Thr Val Lys Ser Met Leu Leu Ala Pro Lys Leu Asn			
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Glu Ala Asn Leu Asn Val Glu Leu Met Lys His Phe Ala Arg Leu Gln			
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Ala Lys Asp Glu Gln Gly Pro Ile Arg Cys Asn Thr Thr Val Cys Leu			
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Gly Lys Ile Gly Ser Tyr Leu Ser Ala Ser Thr Arg His Arg Val Leu			
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Val Ala Gly Val Leu Gly Phe Ala Ala Thr His Asn Leu Tyr Ser Met			
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Trp Ser Ser Trp Glu Ala Glu Gly Ser Trp Glu Gln Gly Trp Gln Glu		
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725	730	735
Tyr Asn Trp Gly Gly Pro Glu Ser Ser Asp Lys Gly Asp Pro Phe Ala		
740	745	750
Thr Leu Ser Ala Arg Pro Ser Thr Gln Pro Arg Pro Asp Ser Trp Gly		
755	760	765
Glu Asp Asn Trp Glu Gly Leu Glu Thr Asp Ser Arg Gln Val Lys Ala		
770	775	780
Glu Leu Ala Arg Lys Lys Arg Glu Glu Arg Arg Arg Glu Met Glu Ala		
785	790	795
Lys Arg Ala Glu Arg Lys Val Ala Lys Gly Pro Met Lys Leu Gly Ala		
805	810	815
Arg Lys Leu Asp		
820		

<210> 6237

<211> 494

<212> DNA

<213> Homo sapiens

<400> 6237

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 480
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 494

<210> 6238

<211> 141

<212> PRT

<213> Homo sapiens

<400> 6238

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Ser Thr Pro Lys Asn Gly Met Ser Ser Lys Ser Arg Lys Arg Ile Met			
35	40	45	
Pro Asp Pro Val Thr Glu Pro Pro Val Thr Asp Pro Val Tyr Glu Ala			
50	55	60	
Leu Leu Tyr Cys Asn Ile Pro Ser Val Ala Glu Arg Ser Met Glu Gly			
65	70	75	80
His Ala Pro His His Phe Lys Leu Val Ser Val His Val Phe Ile Arg			
85	90	95	
His Gly Asp Arg Tyr Pro Leu Tyr Val Ile Pro Lys Thr Lys Arg Pro			
100	105	110	
Glu Ile Asp Cys Thr Leu Val Ala Asn Arg Lys Pro Tyr His Pro Lys			
115	120	125	
Leu Glu Ala Phe Ile Ser His Met Leu Arg Gly Ser Gly			
130	135	140	

<210> 6239

<211> 911
<212> DNA
<213> Homo sapiens

<400> 6239

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911

<210> 6240
<211> 235
<212> PRT
<213> Homo sapiens

<400> 6240
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35 40 45
Phe Arg Lys Phe Gln Val Trp Arg Leu Val Thr Asn Phe Leu Phe Phe
50 55 60
Gly Pro Leu Gly Phe Ser Phe Phe Asn Met Leu Phe Val Phe Arg
65 70 75 80
Tyr Cys Arg Met Leu Glu Gly Ser Phe Arg Gly Arg Thr Ala Asp
85 90 95
Phe Val Phe Met Phe Leu Phe Gly Gly Val Leu Met Thr Leu Leu Gly
100 105 110
Leu Leu Gly Ser Leu Phe Phe Leu Gly Gln Ala Leu Met Ala Met Leu
115 120 125
Val Tyr Val Trp Ser Arg Arg Ser Pro Arg Val Arg Val Asn Phe Phe
130 135 140
Gly Leu Leu Thr Phe Gln Ala Pro Phe Leu Pro Trp Ala Leu Met Gly
145 150 155 160
Phe Ser Leu Leu Leu Gly Asn Ser Ile Leu Val Asp Leu Leu Gly Ile
165 170 175
Ala Val Gly His Ile Tyr Tyr Phe Leu Glu Asp Val Phe Pro Asn Gln
180 185 190
Pro Gly Gly Lys Arg Leu Leu Gln Thr Pro Gly Phe Leu Lys Leu Leu
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Gln Pro Gly Pro His Leu Pro Pro Pro Gln Gln
225 230 235

<210> 6241
<211> 1515
<212> DNA
<213> Homo sapiens

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240

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<210> 6242
<211> 245
<212> PRT
<213> Homo sapiens

<400> 6242
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Gly Glu Pro Pro Pro Pro Glu Leu Ala Leu Leu Pro Pro Pro Pro Pro		
50	55	60
Pro Pro Pro Thr Pro Ala Thr Pro Thr Ser Ser Ala Ser Asn Leu Asp		
65	70	75
Leu Gly Glu Gln Arg Asp Ala Trp Glu Thr Phe Gln Lys Arg Gln Lys		
85	90	95
Leu Thr Ser Glu Gly Ala Ala Lys Leu Leu Leu Asp Thr Phe Glu Tyr		
100	105	110
Gln Gly Leu Val Lys His Thr Gly Gly Cys His Cys Gly Ala Val Arg		
115	120	125
Phe Glu Val Trp Ala Ser Ala Asp Leu His Ile Phe Asp Cys Asn Cys		
130	135	140
Ser Ile Cys Lys Lys Gln Asn Arg His Phe Ile Val Pro Ala Ser		
145	150	155
Arg Phe Lys Leu Leu Lys Gly Ala Glu His Ile Thr Thr Tyr Thr Phe		
165	170	175
Asn Thr His Lys Ala Gln His Thr Phe Cys Lys Arg Cys Gly Val Gln		
180	185	190
Ser Phe Tyr Thr Pro Arg Ser Asn Pro Gly Gly Phe Gly Ile Ala Pro		
195	200	205
His Cys Leu Asp Glu Gly Thr Val Arg Ser Met Val Thr Glu Glu Phe		
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225	230	235
Asn Met Ser Lys Glu		
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<210> 6243

<211> 326

<212> DNA

<213> Homo sapiens

<400> 6243

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<210> 6244

<211> 104

<212> PRT

<213> Homo sapiens

<400> 6244
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35 40 45
Arg Met Ser Ser Ser Leu His Ser Leu Trp Phe Val Pro Leu Val Ser
50 55 60
Glu Glu Glu Val Leu Ile Ile Leu Ser Gly Ser Glu Cys Ser Thr Cys
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Phe Leu Ser Phe Ser Pro Trp Arg
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<210> 6245
<211> 6609
<212> DNA
<213> Homo sapiens

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 6609

<210> 6246
 <211> 1286
 <212> PRT
 <213> Homo sapiens

<400> 6246
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 Ile Leu Ser Glu Gln Lys Ala Met Ile Asn Ala Met Asp Ser Lys Ile
 35 40 45
 Arg Ser Leu Glu Gln Arg Ile Val Glu Leu Ser Glu Ala Asn Lys Leu
 50 55 60
 Ala Ala Asn Ser Ser Leu Phe Thr Gln Arg Asn Met Lys Ala Gln Glu
 65 70 75 80
 Glu Met Ile Ser Glu Leu Arg Gln Gln Lys Phe Tyr Leu Glu Thr Gln
 85 90 95
 Ala Gly Lys Leu Glu Ala Gln Asn Arg Lys Leu Glu Glu Gln Leu Glu
 100 105 110
 Lys Ile Ser His Gln Asp His Ser Asp Lys Asn Arg Leu Leu Glu Leu
 115 120 125
 Glu Thr Arg Leu Arg Glu Val Ser Leu Glu His Glu Glu Gln Lys Leu
 130 135 140
 Glu Leu Lys Arg Gln Leu Thr Glu Leu Gln Leu Ser Leu Gln Glu Arg

145	150	155	160
Glu Ser Gln Leu Thr Ala Leu Gln Ala Ala Arg Ala Ala Leu Glu Ser			
165	170	175	
Gln Leu Arg Gln Ala Lys Thr Glu Leu Glu Glu Thr Thr Ala Glu Ala			
180	185	190	
Glu Glu Glu Ile Gln Ala Leu Thr Ala His Arg Asp Glu Ile Gln Arg			
195	200	205	
Lys Phe Asp Ala Leu Arg Asn Ser Cys Thr Val Ile Thr Asp Leu Glu			
210	215	220	
Glu Gln Leu Asn Gln Leu Thr Glu Asp Asn Ala Glu Leu Asn Asn Gln			
225	230	235	240
Asn Phe Tyr Leu Ser Lys Gln Leu Asp Glu Ala Ser Gly Ala Asn Asp			
245	250	255	
Glu Ile Val Gln Leu Arg Ser Glu Val Asp His Leu Arg Arg Glu Ile			
260	265	270	
Thr Glu Arg Glu Met Gln Leu Thr Ser Gln Lys Gln Thr Met Glu Ala			
275	280	285	
Leu Lys Thr Thr Cys Thr Met Leu Glu Glu Gln Val Met Asp Leu Glu			
290	295	300	
Ala Leu Asn Asp Glu Leu Leu Glu Lys Glu Arg Gln Trp Glu Ala Trp			
305	310	315	320
Arg Ser Val Leu Gly Asp Glu Lys Ser Gln Phe Glu Cys Arg Val Arg			
325	330	335	
Glu Leu Gln Arg Met Leu Asp Thr Glu Lys Gln Ser Arg Ala Arg Ala			
340	345	350	
Asp Gln Arg Ile Thr Glu Ser Arg Gln Val Val Glu Leu Ala Val Lys			
355	360	365	
Glu His Lys Ala Glu Ile Leu Ala Leu Gln Gln Ala Leu Lys Glu Gln			
370	375	380	
Lys Leu Lys Ala Glu Ser Leu Ser Asp Lys Leu Asn Asp Leu Glu Lys			
385	390	395	400
Lys His Ala Met Leu Glu Met Asn Ala Arg Ser Leu Gln Gln Lys Leu			
405	410	415	
Glu Thr Glu Arg Glu Leu Lys Gln Arg Leu Leu Glu Glu Gln Ala Lys			
420	425	430	
Leu Gln Gln Gln Met Asp Leu Gln Lys Asn His Ile Phe Arg Leu Thr			
435	440	445	
Gln Gly Leu Gln Glu Ala Leu Asp Arg Ala Asp Leu Leu Lys Thr Glu			
450	455	460	
Arg Ser Asp Leu Glu Tyr Gln Leu Glu Asn Ile Gln Val Leu Tyr Ser			
465	470	475	480
His Glu Lys Val Lys Met Glu Gly Thr Ile Ser Gln Gln Thr Lys Leu			
485	490	495	
Ile Asp Phe Leu Gln Ala Lys Met Asp Gln Pro Ala Lys Lys Lys			
500	505	510	
Val Pro Leu Gln Tyr Asn Glu Leu Lys Leu Ala Leu Glu Lys Glu Lys			
515	520	525	
Ala Arg Cys Ala Glu Leu Glu Ala Leu Gln Lys Thr Arg Ile Glu			
530	535	540	
Leu Arg Ser Ala Arg Glu Glu Ala Ala His Arg Lys Ala Thr Asp His			
545	550	555	560
Pro His Pro Ser Thr Pro Ala Thr Ala Arg Gln Gln Ile Ala Met Ser			
565	570	575	
Ala Ile Val Arg Ser Pro Glu His Gln Pro Ser Ala Met Ser Leu Leu			

580	585	590
Ala Pro Pro Ser Ser Arg Arg Lys Glu Ser Ser Thr Pro Glu Glu Phe		
595	600	605
Ser Arg Arg Leu Lys Glu Arg Met His His Asn Ile Pro His Arg Phe		
610	615	620
Asn Val Gly Leu Asn Met Arg Ala Thr Lys Cys Ala Val Cys Leu Asp		
625	630	635
640		
Thr Val His Phe Gly Arg Gln Ala Ser Lys Cys Leu Glu Cys Gln Val		
645	650	655
Met Cys His Pro Lys Cys Ser Thr Cys Leu Pro Ala Thr Cys Gly Leu		
660	665	670
Pro Ala Glu Tyr Ala Thr His Phe Thr Glu Ala Phe Cys Arg Asp Lys		
675	680	685
Met Asn Ser Pro Gly Leu Gln Thr Lys Glu Pro Ser Ser Ser Leu His		
690	695	700
Leu Glu Gly Trp Met Lys Val Pro Arg Asn Asn Lys Arg Gly Gln Gln		
705	710	715
720		
Gly Trp Asp Arg Lys Tyr Ile Val Leu Glu Gly Ser Lys Val Leu Ile		
725	730	735
Tyr Asp Asn Glu Ala Arg Glu Ala Gly Gln Arg Pro Val Glu Glu Phe		
740	745	750
Glu Leu Cys Leu Pro Asp Gly Asp Val Ser Ile His Gly Ala Val Gly		
755	760	765
Ala Ser Glu Leu Ala Asn Thr Ala Lys Ala Asp Val Pro Tyr Ile Leu		
770	775	780
Lys Met Glu Ser His Pro His Thr Thr Cys Trp Pro Gly Arg Thr Leu		
785	790	795
800		
Tyr Leu Leu Ala Pro Ser Phe Pro Asp Lys Gln Arg Trp Val Thr Ala		
805	810	815
Leu Glu Ser Val Val Ala Gly Gly Arg Val Ser Arg Glu Lys Ala Glu		
820	825	830
Ala Asp Ala Lys Leu Leu Gly Asn Ser Leu Leu Lys Leu Glu Gly Asp		
835	840	845
Asp Arg Leu Asp Met Asn Cys Thr Leu Pro Phe Ser Asp Gln Val Val		
850	855	860
Leu Val Gly Thr Glu Glu Gly Leu Tyr Ala Leu Asn Val Leu Lys Asn		
865	870	875
880		
Ser Leu Thr His Val Pro Gly Ile Gly Ala Val Phe Gln Ile Tyr Ile		
885	890	895
Ile Lys Asp Leu Glu Lys Leu Leu Met Ile Ala Gly Glu Glu Arg Ala		
900	905	910
Leu Cys Leu Val Asp Val Lys Lys Val Lys Gln Ser Leu Ala Gln Ser		
915	920	925
His Leu Pro Ala Gln Pro Asp Ile Ser Pro Asn Ile Phe Glu Ala Val		
930	935	940
Lys Gly Cys His Leu Phe Gly Ala Gly Lys Ile Glu Asn Gly Leu Cys		
945	950	955
960		
Ile Cys Ala Ala Met Pro Ser Lys Val Val Ile Leu Arg Tyr Asn Glu		
965	970	975
Asn Leu Ser Lys Tyr Cys Ile Arg Lys Glu Ile Glu Thr Ser Glu Pro		
980	985	990
Cys Ser Cys Ile His Phe Thr Asn Tyr Ser Ile Leu Ile Gly Thr Asn		
995	1000	1005
Lys Phe Tyr Glu Ile Asp Met Lys Gln Tyr Thr Leu Glu Glu Phe Leu		

1010	1015	1020
Asp Lys Asn Asp His Ser Leu Ala Pro Ala Val Phe Ala Ala Ser Ser		
1025	1030	1035
Asn Ser Phe Pro Val Ser Ile Val Gln Val Asn Ser Ala Gly Gln Arg		1040
1045	1050	1055
Glu Glu Tyr Leu Leu Cys Phe His Glu Phe Gly Val Phe Val Asp Ser		
1060	1065	1070
Tyr Gly Arg Arg Ser Arg Thr Asp Asp Leu Lys Trp Ser Arg Leu Pro		
1075	1080	1085
Leu Ala Phe Ala Tyr Arg Glu Pro Tyr Leu Phe Val Thr His Phe Asn		
1090	1095	1100
Ser Leu Glu Val Ile Glu Ile Gln Ala Arg Ser Ser Ala Gly Thr Pro		
1105	1110	1115
Ala Arg Ala Tyr Leu Asp Ile Pro Asn Pro Arg Tyr Leu Gly Pro Ala		1120
1125	1130	1135
Ile Ser Ser Gly Ala Ile Tyr Leu Ala Ser Ser Tyr Gln Asp Lys Leu		
1140	1145	1150
Arg Val Ile Cys Cys Lys Gly Asn Leu Val Lys Glu Ser Gly Thr Glu		
1155	1160	1165
His His Arg Gly Pro Ser Thr Ser Arg Ser Ser Pro Asn Lys Arg Gly		
1170	1175	1180
Pro Pro Thr Tyr Asn Glu His Ile Thr Lys Arg Val Ala Ser Ser Pro		
1185	1190	1195
Ala Pro Pro Glu Gly Pro Ser His Pro Arg Glu Pro Ser Thr Pro His		1200
1205	1210	1215
Arg Tyr Arg Glu Arg Thr Glu Leu Arg Arg Asp Lys Ser Pro Gly		
1220	1225	1230
Arg Pro Leu Glu Arg Glu Lys Ser Pro Gly Arg Met Leu Ser Thr Arg		
1235	1240	1245
Arg Glu Arg Ser Pro Gly Arg Leu Phe Glu Asp Ser Ser Arg Gly Arg		
1250	1255	1260
Leu Pro Ala Gly Ala Val Arg Thr Pro Leu Ser Gln Val Asn Lys Val		
1265	1270	1275
Trp Asp Gln Ser Ser Val		1280
	1285	

<210> 6247
<211> 497
<212> DNA
<213> Homo sapiens

<400> 6247
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60 tagaagtgct ggagagggcc aagaggaggg cggtgactg gcatgccctg gagcgtccca
120 aaggctgcat ggggtcctt gccccggagg cgcacccacct agagaaacag ccggcagccg
180 gccccgcagcg cgttctcccg ggagagaaaattattcatc tggccagag gaaggaggg
240 caacccatgt ctatcgatat cacagaggcg agtcaagct gcacatgtgc ttggacatag
300 ggaatggtca gagaaaagac agaaaaaaga catcccttgg tcctggaggc agctatcaa
360

tatccagagca tgctccagag gcatcccagc ctgtgagttac ggaactgctt acgcactggg
420
tttcaccacc gttgcaactc catgaaccag ttgacatgg tcttagaggg ctatggat
480
tgagtctata gtatgg
497

<210> 6248
<211> 142
<212> PRT
<213> Homo sapiens

<400> 6248
Met Gly Trp Thr Asp Val Pro Cys Ser Val His Lys Ala Gly Ser Arg
1 5 10 15
Ser Ala Gly Glu Gly Gln Glu Glu Gly Gly Leu Ala Cys Pro Gly
20 25 30
Ala Ser Gln Arg Leu His Gly Gly Pro Cys Pro Gly Gly Ala Pro Pro
35 40 45
Arg Glu Thr Ala Gly Ser Arg Pro Ala Ala Arg Ser Pro Gly Arg Glu
50 55 60
Ile Leu Phe Ile Cys Ala Arg Gly Arg Arg Gly Asn Pro Cys Leu Ser
65 70 75 80
Leu Ser Gln Arg Arg Val Glu Ala Ala His Val Leu Gly His Arg Glu
85 90 95
Trp Ser Glu Lys Arg Gln Lys Lys Asp Ile Pro Trp Ser Trp Arg Gln
100 105 110
Leu Ser Asn Ile Arg Ala Cys Ser Arg Gly Ile Pro Ala Cys Glu Tyr
115 120 125
Gly Thr Ala Tyr Ala Leu Gly Phe Thr Thr Val Ala Thr Pro
130 135 140

<210> 6249
<211> 1217
<212> DNA
<213> Homo sapiens

<400> 6249
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aagtctcaac ttccaaccc tcgttttttttggccaa agtagcatag atctggtaa
120
tgaactgcag gtggaaattt ctgagaagg ttccttctta aatagaaaga ttaaaccaca
180
gtttccattt tgggtcgact tggaaa gtcatcatcc tgacggccgc tgctcagggg
240
atggccaaag cagctgcctt agcttttgc aagagaaggta ccaaagtcat agccacagac
300
attaatgagt ccaaacttca ggaactggaa aagtacccgg gtattcaaac tcgtgtcctt
360
gatgtcacaa agaagaaaca aattgtatcg ttggccatgt aagttgagag acttgatgtt
420
ctctttatgt ttgctggttt tgtccatcat ggaactgtcc tggattgtga ggagaaagac
480

tgggacttct ccatgaatct caatgtgcgc agcatgtacc tgatgtcaa ggcatttcctt
 540
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 600
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 660
 aaaaaatctg tggctgcaga tttcatccag cagggcatca ggtgcaactg tgtgtgccca
 720
 ggaacagttg atacgccccatc tctacaagaa agaatacaag ccagaggaaa tcctgaagag
 780
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 840
 gccatgctct gcgtgtatgg ctgtgatgg taggatctcc atggggaa ggaaggcagg
 900
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 960
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 1020
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 1080
 ttcttaagt atattaatct cttttaatc tcttcgtaaa tcattgtaaa gaaataaaaaa
 1140
 tattgaactc atagcaggag aatagttttt aaaataatc tcgatttgc agcaaaaaaaaa
 1200
 aaaaaaaaaa aaaaaaaaa
 1217

<210> 6250
 <211> 245
 <212> PRT
 <213> Homo sapiens

<400> 6250
 Met Gly Arg Leu Asp Gly Lys Val Ile Ile Leu Thr Ala Ala Ala Gln
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 Gly Ile Gly Gln Ala Ala Ala Leu Ala Phe Ala Arg Glu Gly Ala Lys
 20 25 30
 Val Ile Ala Thr Asp Ile Asn Glu Ser Lys Leu Gln Glu Leu Glu Lys
 35 40 45
 Tyr Pro Gly Ile Gln Thr Arg Val Leu Asp Val Thr Lys Lys Lys Gln
 50 55 60
 Ile Asp Gln Phe Ala Asn Glu Val Glu Arg Leu Asp Val Leu Phe Asn
 65 70 75 80
 Val Ala Gly Phe Val His His Gly Thr Val Leu Asp Cys Glu Glu Lys
 85 90 95
 Asp Trp Asp Phe Ser Met Asn Leu Asn Val Arg Ser Met Tyr Leu Met
 100 105 110
 Ile Lys Ala Phe Leu Pro Lys Met Leu Ala Gln Lys Ser Gly Asn Ile
 115 120 125
 Ile Asn Met Ser Ser Val Ala Ser Ser Val Lys Gly Val Val Asn Arg
 130 135 140
 Cys Val Tyr Ser Thr Thr Lys Ala Ala Val Ile Gly Leu Thr Lys Ser
 145 150 155 160
 Val Ala Ala Asp Phe Ile Gln Gln Gly Ile Arg Cys Asn Cys Val Cys

165	170	175
Pro Gly Thr Val Asp Thr Pro Ser Leu Gln Glu Arg Ile Gln Ala Arg		
180	185	190
Gly Asn Pro Glu Glu Ala Arg Asn Asp Phe Leu Lys Arg Gln Lys Thr		
195	200	205
Gly Arg Phe Ala Thr Ala Glu Glu Ile Ala Met Leu Cys Val Tyr Leu		
210	215	220
Ala Ser Asp Glu Ser Ala Tyr Val Thr Gly Asn Pro Val Ile Ile Asp		
225	230	235
Gly Gly Trp Ser Leu		
245		

<210> 6251

<211> 1611

<212> DNA

<213> Homo sapiens

<400> 6251

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 120
 ttttggact ttttccgttt cttaataata ggacttctct cagtggtgtga cacccaggta
 180
 gggctgaccc atcctccctt cctttgcttc accaggaatg tcatacgacata catggcttga
 240
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 300
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 360
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 420
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 480
 tatagaaaag agggcatecc ccagccccac agcacaagac cctggccctc agcgctggac
 540
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 600
 ccacaggccc actgaggcag aggcattgatg cgcggcaagtg ctggatgggg catggggaga
 660
 aaggggcgtg ggcagccctg ctactgctgg caagagggtgg ccccatttt tccagatggg
 720
 gaaactgagg cacaaggagg tttggaaact tgcccaaggt cactcacagt gagtcagctt
 780
 ttttaggggaa ggagagcggc tcacactctg gaaaacacag tcacccctccc actggggagc
 840
 agggccaggc aggaggggcc tcaggccca tgactgcctg gaggggacac tcagcccttc
 900
 tgaggacata tggggggtag gcctctgggg aagggtcttt gcttggcatac aggcaggccc
 960
 aagtccagta agggcaaggg gagggggcat tctggtgaga acagcatttc tggcaagacg
 1020
 ggcattccact tcaaaatctc ggctcaaaag ggcagcaggctgatctcaa gccaggcagg
 1080

cagggtcccc caatccctac aattctcctg agtcccctcac caccatggag gacccttgct
 1140
 agggtctacc gggagagtca ccacatctat tatgaggcaa gggcaactggg atatgtccc
 1200
 accatccccct aaacacaaga gtaggctagg ggagcgtgca ggcagcccccc gtcacggcc
 1260
 aggccctgcag cccaaaccat gggcccttc gcactggag tccacgtgag ctcagtacca
 1320
 cgggaaagga tagagaaggg aacaggttaa cgccgcgtgta cagcacctca gagaagccac
 1380
 tgagacggga gagaaagagc caggtctaga aaggcctccc atcaccggca gcagagaggg
 1440
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 1500
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 1560
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 1611

<210> 6252
<211> 100
<212> PRT
<213> Homo sapiens

<400> 6252
Met Gly Gly Arg Pro Leu Gly Lys Gly Leu Cys Leu Ala Ser Gly Arg
 1 5 10 15
Ala Lys Ser Ser Lys Gly Lys Gly Arg Gly His Ser Gly Glu Asn Ser
 20 25 30
Ile Ser Gly Lys Thr Gly Ile His Phe Lys Ile Ser Ala Gln Lys Gly
 35 40 45
Ser Arg Ala Val Leu Lys Pro Gly Arg Gln Gly Pro Pro Ile Pro Thr
 50 55 60
Ile Leu Leu Ser Pro Ser Pro Pro Trp Arg Thr Leu Ala Arg Val Tyr
 65 70 75 80
Arg Glu Ser His His Ile Tyr Tyr Glu Ala Arg Ala Leu Gly Tyr Val
 85 90 95
Pro Thr Ile Pro
 100

<210> 6253
<211> 1953
<212> DNA
<213> Homo sapiens

<400> 6253
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cggctccgag cggccggccgc cggcttcccg ctggccgtga gctaaggacg gtccgcgtccc
 120
tctagccagc tccgaatctt gatccaggcg gggccaggg gcccctcgcc tccccctctga
 180
ggaccgaaaga tgagcttccctt cttcagcagc cgctttctta aaacattcaa accaaagaag
 240

aatatccctg aaggatctca tcagtatcaa ctcttaaaac atgcagaagc aactcttagga
300
agtggaaatc tgagacaagc ttttatgttg cctgagggag agatctcaa tgaatggatt
360
gtgtgaaca ctgtggattt cttaaccag atcaacatgt tataatggaa tattacagaa
420
ttctgcactg aagcaagctg tccagtcatg tctgcaggc cgagatatga atatcactgg
480
cgagatggta ctaatattaa aaagccaatc aaatgttctg cacaaaata cattgactat
540
ttgatgactt gggtaaaga tcagcttgcat gatgaaactc ttttcccttc taagattgg
600
gtccccatttc ccaaaaactt tatgtctgtg gcaaagacta ttctaaagcg tctgttcagg
660
gtttatgccc atatttatca ccagcacttt gattctgtga tgcagctgca agaggaggcc
720
cacctcaaca ctcctttaa gcactttatt ttctttgttc aggagttaa tctgattgt
780
aggcgtgagc tggcacctct tcaagaatta atagagaaac ttggatcaaa agacagataa
840
atgtttcccttc tagaacacag ttacccctt gttcatcta ttgctagaac tatctcattg
900
ctatctgtta tagacttagt atacaaactt taagaaaaca ggataaaaag atacccattg
960
cctgtgtcta ctgataaaat tatccaaag gttagtttgt gtgatagttt ccgagtaaga
1020
ccttaaggac acagccaaat cttaagtact gtgtgaccac tcttggttt atcacatgt
1080
cataacttggt tgtaatatgt gatggtaac ctgtagctt taaatttact tattattctt
1140
ttactcattt actcagtcat ttcttacaa gaaaatgatt gaatctgttt taggtgacag
1200
cacaatggac attaagaatt tccatcaata atttatgaat aagtttccag aacaaatttc
1260
ctaataacac aatcagattt gtttattct tttatttac gaataaaaaa tgtattttc
1320
agtaccccttg agattttagaa catctgtgtc acttcagata acattttagt ttcaagttt
1380
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1440
aatcatcat atgacgtgtg ggtgggagca accaaagtta ttttacagg gactttattt
1500
tttgatcttt attttagatt gtttcatat ctatctaaat tattaggagt gtgtgtatca
1560
gaagtaattt tttaatgtct tctaaggatg gtctccagg cttaaaact gaaaagctt
1620
attcagatag tagctttgg ctgagaaaag gaatccaaa tattaataaa ttttagatctc
1680
aaaaccacta ttttattat ttcatatttt ttcaaggccc ttaaaattct gggtaagaga
1740
atggaggaaa atactcagag tacttgatta ttttattcc ttttattaaa aaattacttc
1800
tatgtttta ttgtctcttg agccttagtt aagagtagtg tagaaatgca tgaactctat
1860

cctaataagg ataaaactta aggaaaacca caataaacca tgaaggtgta cacatcttaa
 1920
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaa
 1953

<210> 6254
<211> 216
<212> PRT
<213> Homo sapiens

<400> 6254
Met Ser Phe Leu Phe Ser Ser Arg Ser Ser Lys Thr Phe Lys Pro Lys
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Lys Asn Ile Pro Glu Gly Ser His Gln Tyr Glu Leu Leu Lys His Ala
 20 25 30
Glu Ala Thr Leu Gly Ser Gly Asn Leu Arg Gln Ala Val Met Leu Pro
 35 40 45
Glu Gly Glu Asp Leu Asn Glu Trp Ile Ala Val Asn Thr Val Asp Phe
 50 55 60
Phe Asn Gln Ile Asn Met Leu Tyr Gly Thr Ile Thr Glu Phe Cys Thr
 65 70 75 80
Glu Ala Ser Cys Pro Val Met Ser Ala Gly Pro Arg Tyr Glu Tyr His
 85 90 95
Trp Ala Asp Gly Thr Asn Ile Lys Lys Pro Ile Lys Cys Ser Ala Pro
 100 105 110
Lys Tyr Ile Asp Tyr Leu Met Thr Trp Val Gln Asp Gln Leu Asp Asp
 115 120 125
Glu Thr Leu Phe Pro Ser Lys Ile Gly Val Pro Phe Pro Lys Asn Phe
 130 135 140
Met Ser Val Ala Lys Thr Ile Leu Lys Arg Leu Phe Arg Val Tyr Ala
 145 150 155 160
His Ile Tyr His Gln His Phe Asp Ser Val Met Gln Leu Gln Glu Glu
 165 170 175
Ala His Leu Asn Thr Ser Phe Lys His Phe Ile Phe Phe Val Gln Glu
 180 185 190
Phe Asn Leu Ile Asp Arg Arg Glu Leu Ala Pro Leu Gln Glu Leu Ile
 195 200 205
Glu Lys Leu Gly Ser Lys Asp Arg
 210 215

<210> 6255
<211> 622
<212> DNA
<213> Homo sapiens

<400> 6255
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 120
aaagccacag tggctgcctt cacagccagc gagggccacg cacatcccacg ggttagtgag
 180
ctacccaaga cggatgaggg cctaggcttc aacatcatgg gtggcaaaga gcaaaactcg
 240

cccatctaca tctccgggt catcccaggg ggtgtggctg accgcacatgg aggccctcaag
300
cgtggggatc aactgttgtc ggtgaacggt gtgagcgttg agggtgagca gcatgagaag
360
gcgggtggagc tgctgaaggc ggcccaggc tcgggtgaagc tggttgtccg ttacacaccg
420
cgagtgtctgg aggagatgga ggcccggttc gagaagatgc gctctgcccc cgccgcgc当地
480
cagcatcaga gctactcgte cttggagtct cgagggttcaa accacagatc tggacgttca
540
cgtgcactct ctccctgtac agtatttatt gttccctggca ctttatttaa agattttga
600
ccctcaaaaaaaa aaaaaaaaaaa aa
622

<210> 6256

<211> 150

<212> PRT

<213> Homo sapiens

<400> 6256

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Met Pro Leu His Ser Ser Leu Gly Asn Arg Val Arg Leu His Leu Lys
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Lys Lys Lys Ala Thr Val Ala Phe Thr Ala Ser Glu Gly His Ala
      20         25         30
His Pro Arg Val Val Glu Leu Pro Lys Thr Asp Glu Gly Leu Gly Phe
      35         40         45
Asn Ile Met Gly Gly Lys Glu Gln Asn Ser Pro Ile Tyr Ile Ser Arg
      50         55         60
Val Ile Pro Gly Gly Val Ala Asp Arg His Gly Gly Leu Lys Arg Gly
      65         70         75         80
Asp Gln Leu Leu Ser Val Asn Gly Val Ser Val Glu Gly Glu Gln His
      85         90         95
Glu Lys Ala Val Glu Leu Leu Lys Ala Ala Gln Gly Ser Val Lys Leu
      100        105        110
Val Val Arg Tyr Thr Pro Arg Val Leu Glu Glu Met Glu Ala Arg Phe
      115        120        125
Glu Lys Met Arg Ser Ala Arg Arg Arg Gln Gln His Gln Ser Tyr Ser
      130        135        140
Ser Leu Glu Ser Arg Gly
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<210> 6257

<211> 2216

<212> DNA

<213> Homo sapiens

<400> 6257

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120  
tcctctgttg aggaaaggtc ttggtgccca gatgcctact ctgcaggaga gggaggaacc  
180
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ttgtccccttt gcggggagtcg ctgggtcttt ctgttgtggg gaagaaggaa ggtgggaggg
240
gcactgtcca ccagcactca gagctccatt atgtccccag ctggggttgc agggtagggg
300
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 <212> PRT
 <213> Homo sapiens

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 195 200 205
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 Val Trp Thr Asp Ser Asp Trp Met Val Cys Gly Gly Gly Pro Ala Leu
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 Arg Ala Pro Gln Lys His Val Thr Phe Tyr Gln Asp Leu Ile Leu Ser

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Arg	Cys	Val
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		Gln
		Leu
		Ser
		Gly
		Glu
		Leu
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Lys	Ala	Gln
Val	Pro	Gly
Ser	Ser	Pro
Gly	Leu	Leu
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Ser	Leu	Leu
290	295	300
Asn	Gln	Pro
Ala	Ala	Pro
Glu	Cys	Lys
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Asn	Ser	Val
Cys	Arg	Asp
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<210> 6259

<211> 384

<212> DNA

<213> Homo sapiens

<400> 6259

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<211> 128

<212> PRT

<213> Homo sapiens

<400> 6260

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Arg Val Lys Ala Lys Gln Lys Pro Leu Ile Ser Asn Ser His Thr Asp
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His Leu Met Gly Cys Thr Lys Ser Ala Glu Pro Gly Thr Glu Thr Ser
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Gln Val Asn Ser Phe Ser Asp Leu Lys Ala Ser Thr Leu Val His Lys
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Pro Gln Ser Asp Phe Thr Asn Asp Ala Leu Ser Pro Lys Phe Asn Leu
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<210> 6261
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 <212> PRT
 <213> Homo sapiens

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 Asp Val Leu Thr Lys Ser Asp Ala Arg His Asn Val Ser Arg Val Pro

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Tyr	Cys Arg Glu Asn Val Cys Leu Ala Tyr Gly Ser Glu Trp Ser Val	
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Ile	Arg Ser Val Ser Phe Tyr Glu His Ile Ile Thr Val Gly Thr Gly	
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Asn	Leu Lys Leu Thr Thr Gly Lys Gly Trp Leu Asn His Asp Glu Thr	
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Trp	Arg Asn Tyr Phe Ser Asp Ile Asp Phe Pro Asn Ala Val Tyr	
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<211> 2508

<212> DNA

<213> Homo sapiens

<400> 6263

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Gln Ile Arg Lys Glu Gln Glu Glu Arg Glu Ala Ile	Arg Leu Ser	
545	550	555
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Leu Glu Gln Ala Leu Pro Pro Glu Pro Lys Glu Glu	Asn Ala Glu Pro	
565	570	575
Val Ser Lys Leu Arg Ile Arg Thr Pro Ser Gly Glu	Phe Leu Glu Arg	
580	585	590
Arg Phe Leu Ala Ser Asn Lys Leu Gln Ile Val Phe	Asp Phe Val Ala	
595	600	605
Ser Lys Gly Phe Pro Trp Asp Glu Tyr Lys Leu Leu	Ser Thr Phe Pro	
610	615	620
Arg Arg Asp Val Thr Gln Leu Asp Pro Asn Lys Ser	Leu Leu Glu Val	
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<210> 6265

<211> 1344

<212> DNA

<213> Homo sapiens

<400> 6265

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<210> 6266
<211> 240
<212> PRT
<213> Homo sapiens

<400> 6266
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Thr	Val	Arg	Glu	His	Arg	Asp	Gly	Gly	His	Ala	Gly	Gly	Ile	Phe	Asn
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Glu	Arg	Tyr	Thr	His	Arg	Arg	Lys	Glu	Val	Ser	Glu	Glu	Asn	His	Asn
85					90						95				
His	Ala	Asn	Glu	Arg	Met	Leu	Phe	His	Gly	Ser	Pro	Phe	Val	Asn	Ala
100					105								110		
Ile	Ile	His	Lys	Gly	Phe	Asp	Glu	Arg	His	Ala	Tyr	Ile	Gly	Gly	Met
115					120								125		
Phe	Gly	Ala	Gly	Ile	Tyr	Phe	Ala	Glu	Asn	Ser	Ser	Lys	Ser	Asn	Gln
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Tyr	Val	Tyr	Gly	Ile	Gly	Gly	Gly	Thr	Gly	Cys	Pro	Val	His	Lys	Asp
145					150					155			160		
Arg	Ser	Cys	Tyr	Ile	Cys	His	Arg	Gln	Leu	Leu	Phe	Cys	Arg	Val	Thr
165					170							175			
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180					185							190			
Pro	Pro	Gly	His	His	Ser	Val	Thr	Gly	Arg	Pro	Ser	Val	Asn	Gly	Leu
195					200							205			
Ala	Leu	Ala	Glu	Tyr	Val	Ile	Tyr	Arg	Gly	Glu	Gln	Ala	Tyr	Pro	Glu
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<210> 6267

<211> 328

<212> DNA

<213> Homo sapiens

<400> 6267

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<210> 6268

<211> 83

<212> PRT

<213> Homo sapiens

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Leu Gln Ile His Asp Glu Glu Val Leu Arg Leu Leu Tyr Glu Glu Ala
35 40 45
Lys Gly Asn Val Leu Ala Ala Arg Tyr Pro Cys Asp Val Glu Asp Cys
50 55 60
Glu Ala Leu Gly Ala Leu Val Cys Arg Val Gln Leu Gly Pro Tyr Gln
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Pro Gly Arg

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<211> 923
<212> DNA
<213> Homo sapiens

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<211> 307
<212> PRT
<213> Homo sapiens

<400> 6270
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35 40 45
Asn Phe Val Ser Lys Glu Glu Phe Gln Ala Val Glu Lys Lys Leu Val
50 55 60
Glu Glu Lys Ala Ala His Ala Lys Thr Lys Val Leu Leu Ala Lys Glu
65 70 75 80
Glu Glu Lys Leu Gln Phe Ala Leu Gly Glu Val Glu Val Leu Ser Lys
85 90 95
Gln Leu Glu Lys Glu Lys Leu Ala Phe Glu Lys Ala Leu Ser Ser Val
100 105 110
Lys Ser Lys Val Leu Gln Glu Ser Ser Lys Lys Asp Gln Leu Ile Thr
115 120 125
Lys Cys Asn Glu Ile Glu Ser His Ile Ile Lys Gln Glu Asp Ile Leu
130 135 140
Asn Gly Lys Glu Asn Glu Ile Lys Glu Leu Gln Gln Val Ile Ser Gln
145 150 155 160
Gln Lys Gln Ile Phe Ser Pro Pro Pro Ala Gly Ser Val Ala Gly Ile
165 170 175
Thr Cys Leu Thr Ser Gly Ser Arg Ser Ser Arg Lys Ala Thr Trp Pro
180 185 190
Arg Cys Trp Thr Arg Ser Ile Arg Lys Pro Gln Gly His Val Arg Pro
195 200 205
Ala Ala Thr Ser Ile Pro Gly Lys Asn Lys Met Ala Ala Ala Phe Leu
210 215 220
Phe Ser Gly Cys Asn Pro Gln Pro Leu Pro Ser Leu Leu Trp Glu Ser
225 230 235 240
Pro Ala Ser Ser Pro Cys Tyr Phe Pro Pro Ser Trp Ile Val Val Gly
245 250 255
Val His Lys Val Gly Ala Cys Ser Leu Gly Glu Glu Leu Gly Leu Cys
260 265 270
Cys Leu Val Gly Thr Thr Ala Ser Phe Gly Tyr Leu Ile Pro Ser Tyr
275 280 285
Ile Asn Ser Pro Gly Tyr Pro Val Ile Phe His Pro Thr Pro Ser Val
290 295 300
Leu Val Asn
305

<210> 6271
<211> 1437
<212> DNA
<213> Homo sapiens

<400> 6271
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<210> 6272
<211> 296
<212> PRT
<213> Homo sapiens

<400> 6272
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Leu Glu Val Ile Lys Thr Arg Leu Gln Ser Ser Arg Leu Ala Leu Arg			
35	40	45	
Thr Val Tyr Tyr Pro Gln Val His Leu Gly Thr Ile Ser Gly Ala Gly			
50	55	60	
Met Val Arg Pro Thr Ser Val Thr Pro Gly Leu Phe Gln Val Leu Lys			
65	70	75	80
Ala Val Tyr Phe Ala Cys Tyr Ser Lys Ala Lys Glu Gln Phe Asn Gly			
85	90	95	
Ile Phe Val Pro Asn Ser Asn Ile Val His Leu Phe Ser Ala Gly Ser			
100	105	110	
Ala Ala Phe Ile Thr Asn Ser Leu Met Asn Pro Ile Trp Met Val Lys			
115	120	125	
Thr Arg Met Gln Leu Glu Gln Lys Val Arg Gly Ser Lys Gln Met Asn			
130	135	140	
Thr Leu Gln Cys Ala Arg Tyr Val Tyr Gln Thr Glu Gly Ile Arg Gly			
145	150	155	160
Phe Tyr Arg Gly Leu Thr Ala Ser Tyr Ala Gly Ile Ser Glu Thr Ile			
165	170	175	
Ile Cys Phe Ala Ile Tyr Glu Ser Leu Lys Lys Tyr Leu Lys Glu Ala			
180	185	190	
Pro Leu Ala Ser Ser Ala Asn Gly Thr Glu Lys Asn Ser Thr Ser Phe			
195	200	205	
Phe Gly Leu Met Ala Ala Ala Leu Ser Lys Gly Cys Ala Ser Cys			
210	215	220	
Ile Ala Tyr Pro His Glu Val Ile Arg Thr Arg Leu Arg Glu Glu Gly			
225	230	235	240
Thr Lys Tyr Lys Ser Phe Val Gln Thr Ala Arg Leu Val Phe Arg Glu			
245	250	255	
Glu Gly Tyr Leu Ala Phe Tyr Arg Gly Leu Phe Ala Gln Leu Ile Arg			
260	265	270	
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<210> 6273

<211> 2355

<212> DNA

<213> Homo sapiens

<400> 6273

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<210> 6274
<211> 70
<212> PRT
<213> Homo sapiens

<400> 6274
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Tyr Arg Val Lys Pro Ala Val Phe Asp Leu Leu Leu Ala Val Gly Ile
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Ala Ala Tyr Leu Gly Met Ala Tyr Val Ala Val Gln Val Ser Ser Ala
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Gln Ala Gln His Phe Ser Leu Leu Tyr Lys Thr Val Gln Arg Leu Leu
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<210> 6275
<211> 1534
<212> DNA
<213> Homo sapiens

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<210> 6276

<211> 172

<212> PRT

<213> Homo sapiens

<400> 6276

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				20				25				30			
Asp	Asp	Leu	Ser	Asn	Ala	Ala	Arg	Glu	Leu	Arg	Val	Leu	Ile	Asp	Asp
				35				40				45			
Ser	Gln	Ser	Ile	Ile	Phe	Ile	Asn	Leu	Asp	Ser	His	Arg	Asn	Val	Met
				50				55				60			
Ile	Arg	Leu	Asn	Leu	Gln	Leu	Thr	Met	Gly	Thr	Phe	Ser	Leu	Leu	

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		Phe	Gly
		Met	Asn
		Leu	Glu
		Ser	Ser
		Leu	
		85	95
Glu	Glu	Asp	His
		Arg	Ile
		Phe	Trp
		Leu	Ile
		Thr	Gly
		Ile	Met
		Phe	Met
		100	105
Gly	Ser	Gly	Leu
		Ile	Trp
		Arg	Arg
		Leu	Leu
		Ser	Phe
		Leu	Gly
			Arg
		115	120
Leu	Glu	Ala	Pro
		Leu	Pro
		Pro	Pro
		Met	Met
		Ala	Ser
		Leu	Pro
		Lys	Lys
		Thr	Thr
		130	135
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		Asp	Arg
		Ser	Met
		Glu	Leu
		Lys	Asn
		Ser	Leu
		Arg	Arg
		Leu	Asp
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Gly	Leu	Gly	Ser
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<210> 6277

<211> 1206

<212> DNA

<213> Homo sapiens

<400> 6277

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<210> 6278
<211> 399
<212> PRT
<213> Homo sapiens

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Asp Gly Ser Thr Val Val Pro Ala Gly Pro Glu Pro Pro Gln Ser
50 55 60
Ser Arg Ala Glu Ser Ser Gly Gly Thr Val Pro Ser Ser Ala
65 70 75 80
Gly Ile Leu Glu Gln Gly Pro Ser Pro Gly Asp Gly Ser Pro Pro Lys
85 90 95
Pro Lys Asp Pro Val Ser Ala Ala Val Pro Ala Pro Xaa Glu Lys Gln
100 105 110
Gln Ser Asp Ser Ile Trp Pro Lys Ser Ala Pro Gly Ser Cys Trp Leu
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Pro Pro Ala Leu His Gly Pro Pro His Asn Ala Ala Gly Pro Ser Pro
130 135 140
His Thr Leu Arg Arg Ala Val Lys Lys Pro Ala Pro Ala Pro Pro Lys
145 150 155 160
Pro Gly Asn Pro Pro Pro Gly His Pro Gly Gly Gln Ser Ser Ser Gly
165 170 175
Thr Ser Gln His Pro Pro Ser Leu Ser Pro Lys Pro Pro Thr Arg Ser
180 185 190
Pro Ser Pro Pro Pro Ser Thr Arg Ala Ser Leu Gln Ala Ser Pro Pro
195 200 205
Pro Pro Pro Ser Ser Gln His Pro Gly Gly Thr Pro Xaa Ser Leu Ser
210 215 220
Pro Ile Gln Ala Pro Asn His Pro Pro Pro Gln Pro Pro Thr Gln Ala
225 230 235 240
Thr Pro Leu Met His Thr Lys Pro Asn Ser Gln Gly Pro Pro Asn Pro
245 250 255
Met Ala Leu Pro Ser Glu His Gly Leu Glu Gln Pro Ser His Thr Pro
260 265 270
Pro Gln Thr Pro Thr Pro Pro Ser Thr Pro Pro Leu Gly Lys Gln Asn
275 280 285
Pro Ser Leu Pro Ala Pro Gln Thr Leu Ala Gly Gly Asn Pro Glu Thr
290 295 300
Ala Gln Pro His Ala Gly Thr Leu Pro Arg Pro Arg Pro Val Pro Lys

305 310 315 320
Pro Arg Asn Arg Pro Ser Val Pro Pro Pro Gln Pro Pro Gly Val
325 330 335
His Ser Ala Gly Asp Ser Ser Leu Thr Asn Thr Ala Pro Thr Ala Ser
340 345 350
Lys Ile Val Thr Asp Ser Asn Ser Arg Val Ser Glu Pro His Arg Ser
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<210> 6279

<211> 2795

<212> DNA

<213> Homo sapiens

<400> 6279

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<210> 6280
 <211> 619
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Ser Leu Ser Leu Glu Ile Leu Gln Ile Ile Lys Glu Ser Gln Gln
 50 55 60
 His Gly Leu Arg His Gly Asp Phe Gln Arg Tyr Arg Gly Tyr Cys Ser
 65 70 75 80
 Arg Arg Gln Arg Arg Leu Arg Lys Thr Leu Asn Phe Lys Met Gly Asn
 85 90 95
 Arg His Lys Phe Thr Gly Lys Lys Val Thr Glu Glu Leu Leu Thr Asp
 100 105 110
 Asn Arg Tyr Leu Leu Val Leu Met Asp Ala Glu Arg Ala Trp Ser
 115 120 125
 Tyr Ala Met Gln Leu Lys Gln Glu Ala Asn Thr Glu Pro Arg Lys Arg
 130 135 140
 Phe His Leu Leu Ser Arg Leu Arg Lys Ala Val Lys His Ala Glu Glu
 145 150 155 160
 Leu Glu Arg Leu Cys Lys Ser Asn Arg Val Asp Ala Lys Thr Lys Leu
 165 170 175
 Glu Ala Gln Ala Tyr Thr Ala Tyr Leu Ser Gly Met Leu Arg Phe Glu
 180 185 190
 His Gln Glu Trp Lys Ala Ala Ile Glu Ala Phe Asn Lys Cys Lys Thr
 195 200 205
 Ile Tyr Glu Lys Leu Ala Ser Ala Phe Thr Glu Glu Gln Ala Val Leu
 210 215 220
 Tyr Asn Gln Arg Val Glu Glu Ile Ser Pro Asn Ile Arg Tyr Cys Ala
 225 230 235 240
 Tyr Asn Ile Gly Asp Gln Ser Ala Ile Asn Glu Leu Met Gln Met Arg
 245 250 255
 Leu Arg Ser Gly Gly Thr Glu Gly Leu Ala Glu Lys Leu Glu Ala
 260 265 270
 Leu Ile Thr Gln Thr Arg Ala Lys Gln Ala Ala Thr Met Ser Glu Val
 275 280 285
 Glu Trp Arg Gly Arg Thr Val Pro Val Lys Ile Asp Lys Val Arg Ile
 290 295 300
 Phe Leu Leu Gly Leu Ala Asp Asn Glu Ala Ala Ile Val Gln Ala Glu
 305 310 315 320
 Ser Glu Glu Thr Lys Glu Arg Leu Phe Glu Ser Met Leu Ser Glu Cys
 325 330 335
 Arg Asp Ala Ile Gln Val Val Arg Glu Glu Leu Lys Pro Asp Gln Lys

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355	360	365
Gln Tyr Leu His Ser Tyr Leu Thr Tyr Ile Lys Leu Ser Thr Ala Ile		
370	375	380
Lys Arg Asn Glu Asn Met Ala Lys Gly Leu His Arg Ala Leu Leu Gln		
385	390	395
400		
Gln Gln Pro Glu Asp Asp Ser Lys Arg Ser Pro Arg Pro Gln Asp Leu		
405	410	415
Ile Arg Leu Tyr Asp Ile Ile Leu Gln Asn Leu Val Glu Leu Leu Gln		
420	425	430
Leu Pro Gly Leu Glu Glu Asp Lys Ala Phe Gln Lys Glu Ile Gly Leu		
435	440	445
Lys Thr Leu Val Phe Lys Ala Tyr Arg Cys Phe Phe Ile Ala Gln Ser		
450	455	460
Tyr Val Leu Val Lys Lys Trp Ser Glu Ala Leu Val Leu Tyr Asp Arg		
465	470	475
480		
Val Leu Lys Tyr Ala Asn Glu Val Asn Ser Asp Ala Gly Ala Phe Lys		
485	490	495
Asn Ser Leu Lys Asp Leu Pro Asp Val Gln Glu Leu Ile Thr Gln Val		
500	505	510
Arg Ser Glu Lys Cys Ser Leu Gln Ala Ala Ile Leu Asp Ala Asn		
515	520	525
Asp Ala His Gln Thr Glu Thr Ser Ser Gln Val Lys Asp Asn Lys		
530	535	540
Pro Leu Val Glu Arg Phe Glu Thr Phe Cys Leu Asp Pro Ser Leu Val		
545	550	555
560		
Thr Lys Gln Ala Asn Leu Val His Phe Pro Pro Gly Phe Gln Pro Ile		
565	570	575
Pro Cys Lys Pro Leu Phe Phe Asp Leu Ala Leu Asn His Val Ala Phe		
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Pro Pro Leu Glu Asp Lys Leu Glu Gln Lys Thr Lys Ser Gly Leu Thr		
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Gly Tyr Ile Lys Gly Ile Phe Gly Phe Arg Ser		
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<210> 6281
<211> 741
<212> DNA
<213> Homo sapiens

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<210> 6282
 <211> 162
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Lys Glu Leu Leu Glu Gln Met Asp Leu Glu Val Arg Glu Ile Pro Pro
 50 55 60
 Gln Ser Arg Gly Met Tyr Ser Asn Arg Met Arg Ser Tyr Lys Gln Glu
 65 70 75 80
 Met Gly Lys Leu Glu Thr Asp Phe Lys Arg Ser Arg Ile Ala Tyr Ser
 85 90 95
 Asp Glu Val Arg Asn Glu Leu Leu Gly Asp Asp Gly Asn Ser Ser Glu
 100 105 110
 Asn Gln Arg Ala His Leu Leu Asp Asn Thr Glu Arg Leu Glu Arg Ser
 115 120 125
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 Asn Thr

<210> 6283
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 <212> DNA
 <213> Homo sapiens

<400> 6283
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<210> 6284
<211> 122
<212> PRT
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Lys Pro Ile His Val Phe Phe Gly Ala Ala Ile Leu Ser Leu Ser Ile
      35          40          45
Ala Ser Val Ile Ser Gly Ile Asn Glu Lys Leu Phe Phe Ser Leu Lys
      50          55          60
Asn Thr Thr Arg Pro Tyr His Ser Leu Pro Ser Glu Ala Val Phe Ala
      65          70          75          80
Asn Ser Thr Gly Met Leu Val Val Ala Phe Gly Leu Leu Val Leu Tyr
      85          90          95
Ile Leu Leu Ala Ser Ser Trp Lys Arg Pro Glu Pro Gly Ile Leu Thr
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Asp Arg Gln Pro Leu Leu His Asp Gly Glu
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<211> 2542
<212> DNA
<213> Homo sapiens

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<210> 6286

<211> 57

<212> PRT

<213> Homo sapiens

<400> 6286

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							20				25			30	
Ala	Gly	Asn	Ile	Tyr	Leu	Gly	Thr	Ser	Pro	Pro	Ser	Gln	Glu	Pro	Ser
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<210> 6287

<211> 1674

<212> DNA

<213> Homo sapiens

<400> 6287

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<210> 6288

<211> 269
<212> PRT
<213> Homo sapiens

<400> 6288
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35 40 45
Ser Val Lys Leu Asp Glu His Ile Ile Pro Leu Gly Ser Met Ala Ile
50 55 60
Asn Ser Ile Ser Lys Leu Thr Gln Leu Thr Gln Ser Ser Met Tyr Ser
65 70 75 80
Leu Pro Asn Ala Pro Thr Leu Ala Asp Leu Glu Asp Asp Thr His Glu
85 90 95
Ala Ser Asp Asp Gln Pro Glu Lys Pro His Phe Asp Ser Arg Ser Val
100 105 110
Ile Phe Glu Leu Asp Ser Cys Asn Gly Ser Gly Lys Val Cys Leu Val
115 120 125
Tyr Lys Ser Gly Lys Pro Ala Leu Ala Glu Asp Thr Glu Ile Trp Phe
130 135 140
Leu Asp Arg Ala Leu Tyr Trp His Phe Leu Thr Asp Thr Phe Thr Ala
145 150 155 160
Tyr Tyr Arg Leu Leu Ile Thr His Leu Gly Leu Pro Gln Trp Gln Tyr
165 170 175
Ala Phe Thr Ser Tyr Gly Ile Ser Pro Gln Ala Lys Gln Trp Phe Ser
180 185 190
Met Tyr Lys Pro Ile Thr Tyr Asn Thr Asn Leu Leu Thr Glu Glu Thr
195 200 205
Asp Ser Phe Val Asn Lys Leu Asp Pro Ser Lys Val Phe Lys Ser Lys
210 215 220
Asn Lys Ile Val Ile Pro Lys Lys Gly Pro Val Gln Pro Ala Gly
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Ser Lys Ser Ser Ser Gly Ser Gly Asn Pro Thr Arg Lys
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<210> 6289
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<212> DNA
<213> Homo sapiens

<400> 6289
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 720
 720
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 Ser Pro Asp Glu Gly Leu Ile Glu Asp Leu Thr Ile Glu Asp Lys Ala
 35 40 45
 Val Glu Gln Leu Ala Glu Gly Leu Leu Ser His Tyr Leu Pro Asp Leu
 50 55 60
 Gln Arg Ser Lys Gln Ala Leu Gln Glu Leu Thr Gln Asn Gln Val Val

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Leu	Leu	Asp	Thr	Leu	Glu	Gln	Glu	Ile	Ser	Lys	Phe	Lys	Glu	Cys	His
				85	90									95	
Ser	Met	Leu	Asp	Ile	Asn	Ala	Leu	Phe	Ala	Glu	Ala	Lys	His	Tyr	His
				100	105									110	
Ala	Lys	Leu	Val	Asn	Ile	Arg	Lys	Glu	Met	Leu	Met	Leu	His	Glu	Lys
				115	120									125	
Thr	Ser	Lys	Leu	Lys	Lys	Arg	Ala	Leu	Lys	Leu	Gln	Gln	Lys	Arg	Gln
				130	135									140	
Lys	Glu	Glu	Leu	Glu	Arg	Glu	Gln	Gln	Arg	Glu	Lys	Gly	Phe	Glu	Arg
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<210> 6291

<211> 2718

<212> DNA

<213> Homo sapiens

<400> 6291

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<210> 6292
<211> 497
<212> PRT
<213> Homo sapiens

<400> 6292
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35 40 45
Pro Arg Pro Ser Ser Leu Ser Asp Lys Thr Gln Leu His Ser Arg Trp
50 55 60
Leu Asp Ser Ser Arg Cys Leu Met Gln Gln Gly Ile Lys Ala Gly Asp
65 70 75 80
Ala Leu Trp Leu Arg Phe Lys Tyr Tyr Ser Phe Phe Asp Leu Asp Pro
85 90 95
Lys Thr Asp Pro Val Arg Leu Thr Gln Leu Tyr Glu Gln Ala Arg Trp
100 105 110
Asp Leu Leu Leu Glu Glu Ile Asp Cys Thr Glu Glu Glu Met Met Val
115 120 125
Phe Ala Ala Leu Gln Tyr His Ile Asn Lys Leu Ser Gln Ser Gly Glu
130 135 140
Val Gly Glu Pro Ala Gly Thr Asp Pro Gly Leu Asp Asp Leu Asp Val
145 150 155 160
Ala Leu Ser Asn Leu Glu Val Lys Leu Glu Gly Ser Ala Pro Thr Asp
165 170 175
Val Leu Asp Ser Leu Thr Thr Ile Pro Glu Leu Lys Asp Tyr Leu Arg
180 185 190
Ile Phe Arg Pro Arg Lys Leu Thr Leu Lys Gly Tyr Arg Gln His Trp
195 200 205
Val Val Phe Lys Glu Thr Thr Leu Ser Tyr Tyr Lys Ser Gln Asp Glu
210 215 220
Ala Pro Gly Asp Pro Ile Gln Gln Leu Asn Leu Lys Gly Cys Glu Val
225 230 235 240
Val Pro Asp Val Asn Val Ser Gly Gln Lys Phe Cys Ile Lys Leu Leu
245 250 255
Val Pro Ser Pro Glu Gly Met Ser Glu Ile Tyr Leu Arg Cys Gln Asp
260 265 270
Glu Gln Gln Tyr Ala Arg Trp Met Ala Gly Cys Arg Leu Ala Ser Lys
275 280 285
Gly Arg Thr Met Ala Asp Ser Ser Tyr Thr Ser Glu Val Gln Ala Ile
290 295 300
Leu Ala Phe Leu Ser Leu Gln His Gly Gln Trp Gly Pro Arg Gln Pro
305 310 315 320
Pro Pro Arg Pro Asp Ala Ser Ala Glu Gly Leu Asn Pro Tyr Gly Leu
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Val Ala Pro Arg Phe Gln Arg Lys Phe Lys Ala Lys Gln Leu Thr Pro

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Ala Gln Leu Arg Phe Ile Gln Ala Trp Gln Ser	Leu Pro Asp Phe Gly	
370	375	380
Ile Ser Tyr Val Met Val Arg Phe Lys Gly Ser	Arg Lys Asp Glu Ile	
385	390	395
Leu Gly Ile Ala Asn Asn Arg Leu Ile Arg	Ile Asp Leu Ala Val Gly	
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Asp Val Val Lys Thr Trp Arg Phe Ser Asn Met	Arg Gln Trp Asn Val	
420	425	430
Asn Trp Asp Ile Arg Gln Val Ala Ile Glu Phe	Asp Glu His Ile Asn	
435	440	445
Val Ala Phe Ser Cys Val Ser Ala Ser Cys Arg	Ile Val His Glu Tyr	
450	455	460
Ile Gly Gly Tyr Ile Phe Leu Ser Thr Arg	Glu Arg Ala Arg Gly Glu	
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Phe		

<210> 6293

<211> 750

<212> DNA

<213> Homo sapiens

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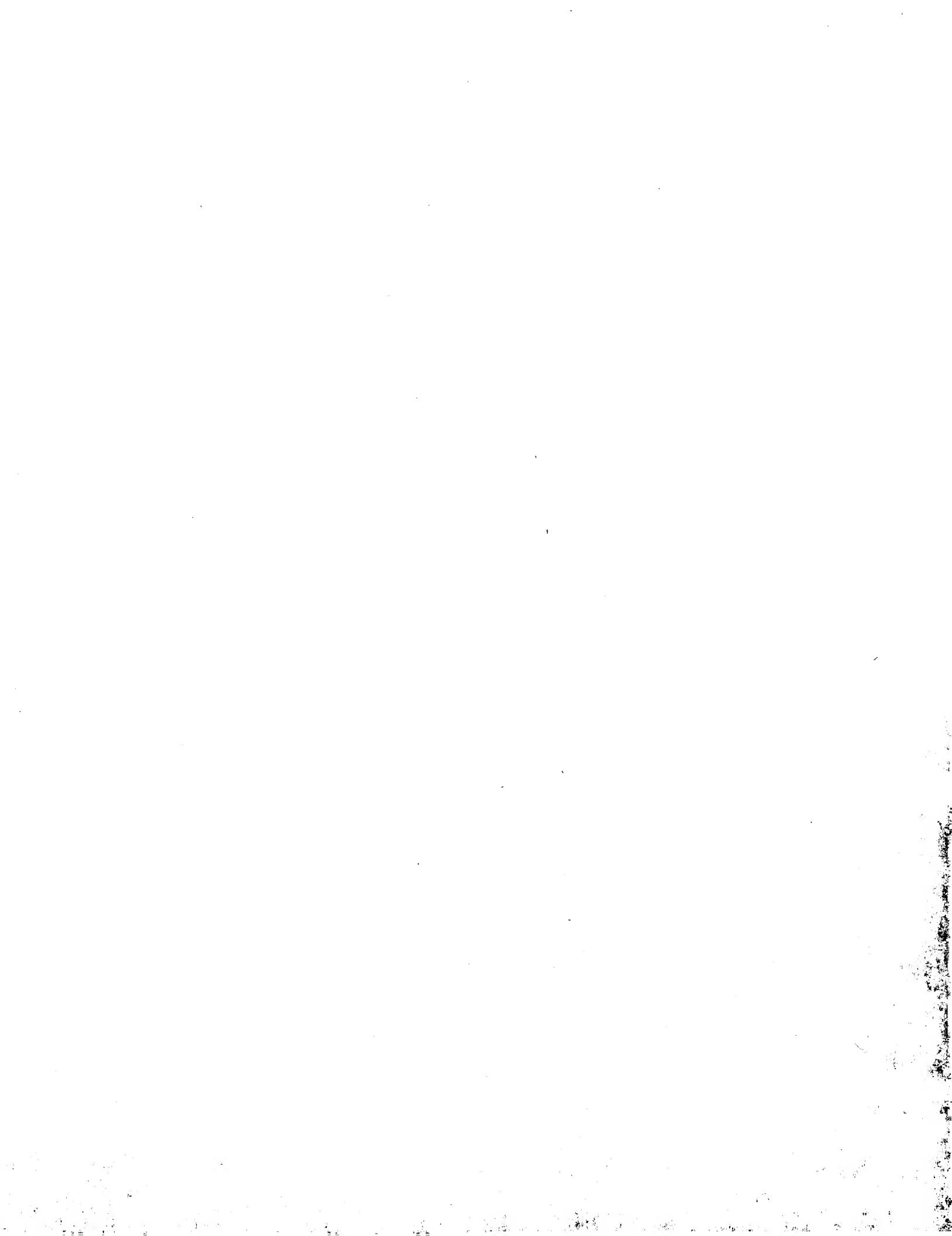
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<211> 250
<212> PRT
<213> Homo sapiens

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35 40 45
Arg Ser Arg Leu Lys Val Arg Phe Cys Thr Asn Glu Ser Gln Lys Ser
50 55 60
Arg Ala Glu Leu Val Gly Gln Leu Gln Arg Leu Gly Phe Asp Ile Ser
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Glu Gln Glu Val Thr Ala Pro Ala Pro Ala Ala Cys Gln Ile Leu Lys
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100 105 110
Glu Phe Asp Gln Ile Asp Thr Ser Asn Pro Asn Cys Val Val Ile Ala
115 120 125
Asp Ala Gly Glu Ser Phe Ser Tyr Gln Asn Met Asn Asn Ala Phe Gln
130 135 140
Val Leu Met Glu Leu Glu Lys Pro Val Leu Ile Ser Leu Gly Lys Gly
145 150 155 160
Arg Tyr Tyr Lys Glu Thr Ser Gly Leu Met Leu Asp Val Gly Pro Tyr
165 170 175
Met Lys Ala Leu Glu Tyr Ala Cys Gly Ile Lys Ala Glu Val Val Gly
180 185 190
Lys Pro Ser Pro Glu Phe Phe Lys Ser Ala Leu Gln Ala Ile Gly Val
195 200 205
Glu Ala His Gln Ala Val Met Ile Gly Asp Asp Ile Val Gly Asp Val
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<212> DNA
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Trp His Pro Arg Ser Arg Asp Val Ala Gln Leu Gly Asp Val Val His			
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<210> 6297

<211> 472

<212> DNA

<213> Homo sapiens

<400> 6297

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<210> 6298

<211> 146

<212> PRT

<213> Homo sapiens

<400> 6298

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Arg Cys Met Gln Cys Asp Ala Lys Phe Asp Phe Leu Thr Arg Lys His			
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His Cys Arg Arg Cys Gly Lys Cys Phe Cys Asp Arg Cys Cys Ser Gln			
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Lys Val Pro Leu Arg Arg Met Cys Phe Val Asp Pro Val Arg Gln Cys			
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Ala Glu Cys Ala Leu Val Ser Leu Lys Glu Ala Glu Phe Tyr Asp Lys			

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<210> 6299
<211> 1466
<212> DNA
<213> Homo sapiens

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<210> 6300
 <211> 372
 <212> PRT
 <213> Homo sapiens

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 Lys Val Arg Leu Val Ile Ala Glu Lys Gly Leu Val Cys Glu Glu Arg
 65 70 75 80
 Asp Val Ser Leu Pro Gln Ser Glu His Lys Glu Pro Trp Phe Met Arg
 85 90 95
 Leu Asn Leu Gly Glu Glu Val Pro Val Ile Ile His Arg Asp Asn Ile
 100 105 110
 Ile Ser Asp Tyr Asp Gln Ile Ile Asp Tyr Val Glu Arg Thr Phe Thr
 115 120 125
 Gly Glu His Val Val Ala Leu Met Pro Glu Val Gly Ser Leu Gln His
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 Ala Arg Val Leu Gln Tyr Arg Glu Leu Leu Asp Ala Leu Pro Met Asp
 145 150 155 160
 Ala Tyr Thr His Gly Cys Ile Leu His Pro Glu Leu Thr Thr Asp Ser
 165 170 175
 Met Ile Pro Lys Tyr Ala Thr Ala Glu Ile Arg Arg His Leu Ala Asn
 180 185 190
 Ala Thr Thr Asp Leu Met Lys Leu Asp His Glu Glu Glu Pro Gln Leu
 195 200 205
 Ser Glu Pro Tyr Leu Ser Lys Gln Lys Lys Leu Met Ala Lys Ile Leu
 210 215 220
 Glu His Asp Asp Val Ser Tyr Leu Lys Lys Ile Leu Gly Glu Leu Ala
 225 230 235 240
 Met Val Leu Asp Gln Ile Glu Ala Glu Leu Glu Lys Arg Lys Leu Glu
 245 250 255
 Asn Glu Gly Gln Lys Cys Glu Leu Trp Leu Cys Gly Cys Ala Phe Thr
 260 265 270
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 275 280 285
 Gly Leu Ser Lys Lys Tyr Trp Glu Asp Gly Ser Arg Pro Asn Leu Gln

290	295	300
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Gly Asp Ile His Thr Thr Leu Leu Ser Ala Val Ile Pro Asn Ala Phe		320
325	330	335
Arg Leu Val Lys Arg Lys Pro Pro Ser Phe Phe Gly Ala Ser Phe Leu		
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<211> 911

<212> DNA

<213> Homo sapiens

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<210> 6302

<211> 202

<212> PRT

<213> Homo sapiens

<400> 6302

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Phe	Arg	Ser	Ser	Thr	Pro	Thr	Gly	Ser	Glu	Tyr	Asp	Glu	Glu	Glu	Val
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Asp	Tyr	Glu	Glu	Ser	Asp	Ser	Asp	Glu	Ser	Trp	Thr	Thr	Glu	Ser	Ala
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Asn	Val	Asn	Gly	Ile	Lys	Tyr	His	Ala	Lys	Asn	Gly	His	Arg	Thr	Gln
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<211> 676

<212> DNA

<213> Homo sapiens

<400> 6303

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<212> PRT
<213> Homo sapiens

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Leu Phe Val Leu Leu Pro Glu Gln Ser Pro Val Ser Tyr Ser Lys Arg
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Thr Ala Tyr Gln Lys Ala Gly Gly Asp Ser Gly Asn Val Asp Asp Asp
 85 90 95
Cys Glu Arg Val Lys Gly Pro Val Gly Ser Leu Lys Ser Val Glu Ala
 100 105 110
Ile Leu Glu Glu Ser Thr Glu Lys Leu Lys Ser Leu Ser Leu Gln Gln
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Gln Gln Asp Gly Asp Asn Gly Asp Ser Ser Lys Ser Thr Glu Thr Ser
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<211> 474
<212> PRT
<213> Homo sapiens

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 35 40 45
Ile Val Glu Ala Ser Gly Gly Ala Phe Leu Val Leu Pro Leu Ser
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Lys Thr Gly Arg Ile Asp Lys Ala Tyr Pro Thr Val Cys Gly His Thr
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Gly Pro Val Leu Asp Ile Asp Trp Cys Pro His Asn Asp Gln Val Ile
 85 90 95
Ala Ser Gly Ser Glu Asp Cys Thr Val Met Val Trp Gln Ile Pro Glu
 100 105 110
Asn Gly Leu Thr Ser Pro Leu Thr Glu Pro Val Val Leu Glu Gly
 115 120 125
His Thr Lys Arg Val Gly Ile Ile Ala Trp His Pro Thr Ala Arg Asn
 130 135 140
Val Leu Leu Ser Ala Gly Cys Asp Asn Val Val Leu Ile Trp Asn Val
 145 150 155 160
Gly Thr Ala Glu Glu Leu Tyr Arg Leu Asp Ser Leu His Pro Asp Leu
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Ile Tyr Asn Val Ser Trp Asn His Asn Gly Ser Leu Phe Cys Ser Ala
 180 185 190
Cys Lys Asp Lys Ser Val Arg Ile Ile Asp Pro Arg Arg Gly Thr Leu
 195 200 205
Val Ala Glu Arg Glu Lys Ala His Glu Gly Ala Arg Pro Met Arg Ala
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Ile Phe Leu Ala Asp Gly Lys Val Phe Thr Thr Gly Phe Ser Arg Met
 225 230 235 240
Ser Glu Arg Gln Leu Ala Leu Trp Asn Pro Lys Asn Met Gln Glu Pro
 245 250 255
Ile Ala Leu His Glu Met Asp Thr Ser Asn Gly Val Leu Leu Pro Phe
 260 265 270
Tyr Asp Pro Asp Thr Ser Ile Ile Tyr Leu Cys Gly Lys Gly Asp Ser

275	280	285
Ser Ile Arg Tyr Phe Glu Ile Thr Asp Glu Ser Pro Tyr Val His Tyr		
290	295	300
Leu Asn Thr Phe Ser Ser Lys Glu Pro Gln Arg Gly Met Gly Tyr Met		
305	310	315
Pro Lys Arg Gly Leu Asp Val Asn Lys Cys Glu Ile Ala Arg Phe Phe		
325	330	335
Lys Leu His Glu Arg Lys Cys Glu Pro Ile Ile Met Thr Val Pro Arg		
340	345	350
Lys Ser Asp Leu Phe Gln Asp Asp Leu Tyr Pro Asp Thr Ala Gly Pro		
355	360	365
Glu Ala Ala Leu Glu Ala Glu Trp Phe Glu Gly Lys Asn Ala Asp		
370	375	380
Pro Ile Leu Ile Ser Leu Lys His Gly Tyr Ile Pro Gly Lys Asn Arg		
385	390	395
Asp Leu Lys Val Val Lys Lys Asn Ile Leu Asp Ser Lys Pro Thr Ala		
405	410	415
Asn Lys Lys Cys Asp Leu Ile Ser Ile Pro Lys Lys Thr Thr Asp Thr		
420	425	430
Ala Ser Val Gln Asn Glu Ala Lys Leu Asp Glu Ile Leu Lys Glu Ile		
435	440	445
Lys Ser Ile Lys Asp Thr Ile Cys Asn Gln Asp Glu Arg Ile Ser Lys		
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<210> 6307

<211> 2119

<212> DNA

<213> Homo sapiens

<400> 6307	
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240	
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300	
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420	
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480	
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660	

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1140
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2119

<210> 6308
<211> 483
<212> PRT

<213> Homo sapiens

<400> 6308

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 Trp Gln Ser Tyr Leu Gln Gly Gln Met Ile Ser Ala Glu Asp Cys Glu
 35 40 45
 Phe Ile Gln Arg Phe Glu Met Lys Arg Ser Pro Glu Glu Lys Gln Glu
 50 55 60
 Met Leu Gln Thr Glu Gly Ser Gln Cys Ala Lys Thr Phe Ile Asn Leu
 65 70 75 80
 Met Thr His Ile Cys Lys Glu Gln Thr Val Gln Tyr Ile Leu Thr Met
 85 90 95
 Val Asp Asp Met Leu Gln Glu Asn His Gln Arg Val Ser Ile Phe Phe
 100 105 110
 Asp Tyr Ala Arg Cys Ser Lys Asn Thr Ala Trp Pro Tyr Phe Leu Pro
 115 120 125
 Met Leu Asn Arg Gln Asp Pro Phe Thr Val His Met Ala Ala Arg Ile
 130 135 140
 Ile Ala Lys Leu Ala Ala Trp Gly Lys Glu Leu Met Glu Gly Ser Asp
 145 150 155 160
 Leu Asn Tyr Tyr Phe Asn Trp Ile Lys Thr Gln Leu Ser Ser Gln Lys
 165 170 175
 Leu Arg Gly Ser Gly Val Ala Val Glu Thr Gly Thr Val Ser Ser Ser
 180 185 190
 Asp Ser Ser Gln Tyr Val Gln Cys Val Ala Gly Cys Leu Gln Leu Met
 195 200 205
 Leu Arg Val Asn Glu Tyr Arg Phe Ala Trp Val Glu Ala Asp Gly Val
 210 215 220
 Asn Cys Ile Met Gly Val Leu Ser Asn Lys Cys Gly Phe Gln Leu Gln
 225 230 235 240
 Tyr Gln Met Ile Phe Ser Ile Trp Leu Leu Ala Phe Ser Pro Gln Met
 245 250 255
 Cys Glu His Leu Arg Arg Tyr Asn Ile Ile Pro Val Leu Ser Asp Ile
 260 265 270
 Leu Gln Glu Ser Val Lys Glu Lys Val Thr Arg Ile Ile Leu Ala Ala
 275 280 285
 Phe Arg Asn Phe Leu Glu Lys Ser Thr Glu Arg Glu Thr Arg Gln Glu
 290 295 300
 Tyr Ala Leu Ala Met Ile Gln Cys Lys Val Leu Lys Gln Leu Glu Asn
 305 310 315 320
 Leu Glu Gln Gln Lys Tyr Asp Asp Glu Asp Ile Ser Glu Asp Ile Lys
 325 330 335
 Phe Leu Leu Glu Lys Leu Gly Glu Ser Val Gln Asp Leu Ser Ser Phe
 340 345 350
 Asp Glu Tyr Ser Ser Glu Leu Lys Ser Gly Arg Leu Glu Trp Ser Pro
 355 360 365
 Val His Lys Ser Glu Lys Phe Trp Arg Glu Asn Ala Val Arg Leu Asn
 370 375 380
 Glu Lys Asn Tyr Glu Leu Leu Lys Ile Leu Thr Lys Leu Leu Glu Val
 385 390 395 400
 Ser Asp Asp Pro Gln Val Leu Ala Val Ala His Asp Val Gly Glu

	405	410	415
Tyr Val Arg His Tyr Pro Arg Gly Lys Arg Val Ile Glu Gln Leu Gly			
420	425	430	
Gly Lys Gln Leu Val Met Asn His Met His His Glu Asp Gln Gln Val			
435	440	445	
Arg Tyr Asn Ala Leu Leu Ala Val Gln Lys Leu Met Val His Asn Trp			
450	455	460	
Glu Tyr Leu Gly Lys Gln Leu Gln Ser Glu Gln Pro Gln Thr Ala Ala			
465	470	475	480
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<210> 6309
<211> 564
<212> DNA
<213> Homo sapiens

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120
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180
ccgcgtggaa cagacgaccc gggtctcaaa gaggcgccgc gggcgggacg cagccctgg
240
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300
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420
ccgcagtttc tcccgagag acgcgttctc gctctccctg tccagcagcg cgtatctgagc
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tggtattaca gggtgccacc acta
564

<210> 6310
<211> 83
<212> PRT
<213> Homo sapiens

<400> 6310
Cys Thr Pro Thr Ala Pro Gly Ser Ser Arg Pro Val Ser Leu Trp Gly
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Ala Gln Gly Pro His Gly Gly Arg Leu His Val Ser Gln Asp Gly Val
20 25 30
Leu Gln Glu Ala Arg Pro Leu Gly Leu Leu Val Pro Asp Ala Gly Asp
35 40 45
Leu Arg Leu Pro Glu Pro Gln Leu Leu Pro Glu Arg Arg Val Leu Ala
50 55 60
Leu Pro Val Gln Gln Arg Asp Leu Ser Ser Leu Glu Pro Pro Pro Pro

65

70

75

80

Arg Phe Glu

<210> 6311
<211> 1548
<212> DNA
<213> Homo sapiens

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120
tttaaagatc ttatgggct caaatactaa ctgcataaaat ggccctttga ataacacgcag
180
caaataatct ctcagctgat atttcaattt actaaggaag cacaattaa aacattcctg
240
ctacacagtc atgggctggc acatgtctgg ttggatgaat acaaggagca gtatTTTCC
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ttaagacctg acctgaagac gaaaagctat ggcaatatca gtgagcgtgt ggaactgaga
360
aagaagttgg gctgtaaatc atttaaatgg tattttggata atgtataaccc agagatgcag
420
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480
cccaaagtcc ttcaacgtgg aaggctctat cacctccaga ccaacaaatg cctggggcc
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caggggccgcc caagtcagaa gggaggtctc gtggatgttta aggccgtgtga ctacagtgc
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660
ctagatatgt cagagactcg ctcatcagac ccggccacggc tcatgaaatg ccacgggtca
720
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780
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840
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900
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960
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1020
tgtgttagca gaggtgacac gtgtctgaca gagacgggag ctctgagtgt ccacgggtga
1080
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1140
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1320

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 1440
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 1548

<210> 6312
 <211> 234
 <212> PRT
 <213> Homo sapiens

<400> 6312
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 20 25 30
 Leu Asp Glu Tyr Lys Glu Gln Tyr Phe Ser Leu Arg Pro Asp Leu Lys
 35 40 45
 Thr Lys Ser Tyr Gly Asn Ile Ser Glu Arg Val Glu Leu Arg Lys Lys
 50 55 60
 Leu Gly Cys Lys Ser Phe Lys Trp Tyr Leu Asp Asn Val Tyr Pro Glu
 65 70 75 80
 Met Gln Ile Ser Gly Ser His Ala Lys Pro Gln Gln Pro Ile Phe Val
 85 90 95
 Asn Arg Gly Pro Lys Arg Pro Lys Val Leu Gln Arg Gly Arg Leu Tyr
 100 105 110
 His Leu Gln Thr Asn Lys Cys Leu Val Ala Gln Gly Arg Pro Ser Gln
 115 120 125
 Lys Gly Gly Leu Val Val Leu Lys Ala Cys Asp Tyr Ser Asp Pro Asn
 130 135 140
 Gln Ile Trp Ile Tyr Asn Glu Glu His Glu Leu Val Leu Asn Ser Leu
 145 150 155 160
 Leu Cys Leu Asp Met Ser Glu Thr Arg Ser Ser Asp Pro Pro Arg Leu
 165 170 175
 Met Lys Cys His Gly Ser Gly Gly Ser Gln Gln Trp Thr Phe Gly Lys
 180 185 190
 Asn Asn Arg Leu Tyr Gln Val Ser Val Gly Gln Cys Leu Arg Ala Val
 195 200 205
 Asp Pro Leu Gly Gln Lys Gly Ser Val Ala Met Ala Ile Cys Asp Gly
 210 215 220
 Ser Ser Ser Gln Gln Trp His Leu Glu Gly
 225 230

<210> 6313
 <211> 725
 <212> DNA
 <213> Homo sapiens

<400> 6313
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 120
 attttgatcg tattgcttc ttgtcttcag gagggaagat ttgcacttca aaagtaacaa
 180
 aatatttaag aagagaattc acatcttct gttctagctg gtattcttgc attatttct
 240
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 300
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 360
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 420
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 480
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 540
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 720
 ggagc
 725

<210> 6314

<211> 175

<212> PRT

<213> Homo sapiens

<400> 6314

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								20		25			30		
His	Pro	Ser	Thr	Asn	Ser	Leu	Leu	Arg	Glu	Gln	Ile	Ser	Leu	Tyr	Pro
								35		40			45		
Glu	Val	Lys	Gly	Glu	Ile	Ala	Arg	Lys	Asp	Glu	Lys	Leu	Leu	Ser	Phe
								50		55			60		
Leu	Lys	Asp	Val	Tyr	Val	Asp	Ser	Lys	Asp	Pro	Val	Ser	Ser	Leu	Gln
								65		70			75		80
Val	Lys	Ala	Ala	Glu	Thr	Cys	Gln	Glu	Pro	Lys	Glu	Phe	Arg	Leu	Pro
								85		90			95		
Lys	Asp	His	His	Phe	Asp	Met	Ile	Asn	Ile	Lys	Ser	Ile	Pro	Lys	Gly
								100		105			110		
Lys	Ile	Ser	Ile	Val	Glu	Ala	Leu	Thr	Leu	Leu	Asn	Asn	His	Lys	Leu
								115		120			125		
Phe	Pro	Glu	Thr	Trp	Thr	Ala	Glu	Lys	Ile	Met	Gln	Glu	Tyr	Gln	Leu
								130		135			140		
Glu	Gln	Lys	Asp	Val	Asn	Ser	Leu	Leu	Lys	Tyr	Phe	Val	Thr	Phe	Glu
								145		150			155		160
Val	Glu	Ile	Phe	Pro	Pro	Glu	Asp	Lys	Lys	Ala	Ile	Arg	Ser	Lys	
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<210> 6315
<211> 378
<212> DNA
<213> Homo sapiens

<400> 6315
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120
tatgtaaaat ataaatatgc aatggatgaa gctgatgaaa aaggatggtt tccattgcat
180
gaagctgttg ttcaacccat tcaacaaata cttgagattt tgctggatgc atcctataag
240
acactctggg aattcaagac ctgtgatgga gaaacaccct tgactttggc agtcaaagct
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360
gataaaggag agaccccc
378

<210> 6316
<211> 126
<212> PRT
<213> Homo sapiens

<400> 6316
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Val Pro Leu Ser Ala Gln Asn Arg Lys Leu Val Glu Ala Ile Lys Gln
20 25 30
Gly His Ile Pro Glu Leu Gln Glu Tyr Val Lys Tyr Lys Tyr Ala Met
35 40 45
Asp Glu Ala Asp Glu Lys Gly Trp Phe Pro Leu His Glu Ala Val Val
50 55 60
Gln Pro Ile Gln Gln Ile Leu Glu Ile Val Leu Asp Ala Ser Tyr Lys
65 70 75 80
Thr Leu Trp Glu Phe Lys Thr Cys Asp Gly Glu Thr Pro Leu Thr Leu
85 90 95
Ala Val Lys Ala Gly Leu Val Glu Asn Val Arg Thr Leu Leu Glu Lys
100 105 110
Gly Val Trp Pro Asn Thr Lys Asn Asp Lys Gly Glu Thr Pro
115 120 125

<210> 6317
<211> 1201
<212> DNA
<213> Homo sapiens

<400> 6317
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120

agggcgccag ctccctgcggg ggagggttct actgcgcgcc ccaccctgtg caagaatgtc
 180
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 240
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 300
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 360
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 480
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 540
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 660
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 780
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 840
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 1201

<210> 6318
 <211> 94
 <212> PRT
 <213> Homo sapiens

<400> 6318
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 20 25 30
 Thr Thr Thr Leu Ser Ser Ala Ser Met Ser Trp Ser Ser Ser Ser Ser
 35 40 45
 Ser Met Gly Ser Ser
 50 55 60
 Gly Thr Phe Thr Ser Pro Glu Cys Arg Cys Leu Tyr Asp Val Lys Pro

65	70	75	80
Thr Ser Ser Pro Ile Arg Ala Leu Phe Leu Ile Thr Ser Arg			
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<210> 6319

<211> 345

<212> DNA

<213> Homo sapiens

<400> 6319

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120
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180
gaggtggcca accggcacgg ccacacgtgc ctcatgatct cgtgctacaa gggccaccgt
240
gagatcgccc gttacctgtt ggaggcaggc gcccaggtga accggcgcag cgccaaaggc
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<210> 6320

<211> 115

<212> PRT

<213> Homo sapiens

<400> 6320

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20 25 30
Asn Ser Thr Pro Leu Arg Ala Ala Cys Phe Asp Gly His Leu Glu Val
35 40 45
Val Arg Tyr Leu Val Gly Glu His Gln Ala Asp Leu Glu Val Ala Asn
50 55 60
Arg His Gly His Thr Cys Leu Met Ile Ser Cys Tyr Lys Gly His Arg
65 70 75 80
Glu Ile Ala Arg Tyr Leu Leu Glu Gln Gly Ala Gln Val Asn Arg Arg
85 90 95
Ser Ala Lys Gly Asn Thr Ala Leu His Asp Cys Ala Glu Ser Gly Ser
100 105 110
Leu Glu Ile
115

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<210> 6321

<211> 1442

<212> DNA

<213> Homo sapiens

<400> 6321

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120
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180
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240
ttgtgtacaa actagctctg tgcgcctca gtttaccgtc ctcacacttt attgttagct
300
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What is claimed is:

1. An isolated nucleic acid molecule encoding a polypeptide comprising an amino acid sequence that is at least 85% identical to a polypeptide including an amino acid sequence selected from the group consisting of SEQ ID NO:2n, wherein n is any integer 1-3161, or the complement thereof.
2. The isolated nucleic acid molecule of claim 1, said molecule hybridizing under stringent conditions to a nucleic acid sequence complementary to a nucleic acid molecule comprising the sequence of nucleotides selected from the group consisting of SEQ ID NO:2n, wherein n is any integer 1-3161, or the complement thereof.
3. The isolated nucleic acid molecule of claim 1, said molecule encoding a polypeptide comprising the amino acid sequence selected from the group consisting of SEQ II NO: 2n, wherein n is any integer 1-3161, or an amino acid sequence comprising one or more conservative substitutions in the amino acid sequence selected from the group consisting of SEQ ID NO: 2n.
4. The isolated nucleic acid molecule of claim 1, wherein said molecule encodes a polypeptide comprising the amino acid sequence selected from the group consisting of SEQ II NO: 2n, wherein n is any integer 1-3161.
5. The isolated nucleic acid molecule of claim 1, wherein said molecule comprise the sequence of nucleotides selected from the group consisting of SEQ ID NO:2n-1, wherein n is any integer 1-3161, or the complement thereof.
6. An oligonucleotide less than 100 nucleotides in length and comprising at least contiguous nucleotides selected from the group consisting of SEQ ID NO:2n-1, wherein n is a integer 1-3161, or the complement thereof.
7. A vector comprising the nucleic acid molecule of claim 1.

8. The vector of claim 7, wherein said vector is an expression vector.

9 A host cell comprising the isolated nucleic acid molecule of claim 1.

10. A substantially purified polypeptide comprising an amino acid sequence at least 80% identical to a polypeptide comprising the amino acid sequence selected from the group consisting of SEQ ID NO: 2n, wherein n is any integer 1-3161.

11. The polypeptide of claim 10, wherein said polypeptide comprises the amino acid sequence selected from the group consisting of SEQ ID NO: 2n, wherein n is any integer 1-3161.

12. An antibody that selectively binds to the polypeptide of claim 10.

13. A pharmaceutical composition comprising a therapeutically or prophylactically effective amount of a therapeutic selected from the group consisting of:

- a) the nucleic acid of claim 1;
- b) the polypeptide of claim 10; and
- c) the antibody of claim 12;

and a pharmaceutically acceptable carrier.

14. A kit comprising in one or more containers, a therapeutically or prophylactically effective amount of the pharmaceutical composition of claim 13.

15. A method of producing the polypeptide of claim 10, said method comprising culturing the host cell of claim 9 under conditions in which the nucleic acid molecule is expressed.

16. A method of detecting the presence of the polypeptide of claim 10 in a sample, comprising contacting the sample with a compound that selectively binds to said polypeptide under conditions allowing the formation of a complex between said polypeptide and said

compound, and detecting said complex, if present, thereby identifying said polypeptide in said sample.

17. A method of detecting the presence of a nucleic acid molecule of claim 1 in a sample, the method comprising contacting the sample with a nucleic acid probe or primer that selectively binds to the nucleic acid molecule and determining whether the nucleic acid probe or primer bound to the nucleic acid molecule of claim 1 is present in the sample.

18. A method for modulating the activity of the polypeptide of claim 10, the method comprising contacting a cell sample comprising the polypeptide of claim 10 with a compound that binds to said polypeptide in an amount sufficient to modulate the activity of the polypeptide.

19. The use of a therapeutic in the manufacture of a medicament for treating a syndrome associated with a ORFX-associated disorder, wherein said therapeutic is selected from the group consisting of:

- a) the nucleic acid of claim 1;
- b) the polypeptide of claim 10; and
- c) the antibody of claim 12.

20. A method for screening for a modulator of activity or of latency or predisposition to an ORFX-associated disorder, said method comprising:

- a) contacting a test compound with the polypeptide of claim 10; and
- b) determining if said test compound binds to said polypeptide,

wherein binding of said test compound to said polypeptide indicates the test compound is a modulator of activity or of latency or predisposition to an ORFX-associated disorder.

21. A method for screening for a modulator of activity or of latency or predisposition to an ORFX-associated disorder, said method comprising:

- a) administering a test compound to a test subject at an increased risk ORFX-associated disorder, wherein said test subject recombinantly expresses a polypeptide encoded by the nucleotide of claim 1;

- b) measuring expression the activity of said protein in said test subject;
- c) measuring the activity of said protein in a control subject that recombinantly expresses said protein and is not at increased risk for an ORFX-associated disorder; and
- d) comparing expression of said protein in said test subject and said control subject, wherein a change in the activity of said protein in said test subject relative to said control subject indicates the test compound is a modulator or of latency of predisposition to an ORFX-associated disorder.

22. The method of claim 20, wherein said test animal is a recombinant test animal that expresses a test protein transgene or expresses said transgene under the control of a promoter at an increased level relative to a wild-type test animal, and wherein said promoter is not the native gene promoter of said transgene.

23. A method for determining the presence of or predisposition to a disease associated with altered levels of a polypeptide of claim 11 in a subject, the method comprising:

- a) measuring the amount of the polypeptide in a sample from said subject; and
- b) comparing the amount of said polypeptide in step (a) to the amount of the polypeptide present in a control sample,

wherein an alteration in the level of the polypeptide in step (a) as compared to the control sample indicates the presence of or predisposition to a disease in said subject.

24. The method of claim 23, wherein said subject is a human.

25. A method for determining the presence of or predisposition to a disease associated with altered levels the nucleic acid molecule of claim 1 in a subject, the method comprising:

- a) measuring the amount of the nucleic acid in a sample from the mammalian subject; and
- b) comparing the amount of said nucleic acid in step (a) to the amount of the nucleic acid present in a control sample,

wherein an alteration in the level of the nucleic acid in step (a) as compared to the control sample indicates the presence of or predisposition to said disease in said subject.

26. The method of claim 25, wherein said subject is a human.
27. A method of treating or preventing a pathological condition associated with an ORFX-associated disorder in a subject, the method comprising administering to said subject a polypeptide of claim 10 in an amount sufficient to alleviate or prevent said pathological condition.
28. The method of claim 27, wherein said subject is a human.
29. A method of treating or preventing a pathological condition associated with an ORFX-associated disorder in a subject, the method comprising administering to said subject a nucleic acid molecule of claim 1 in an amount sufficient to alleviate or prevent said pathological condition.
30. The method of claim 29, wherein said subject is a human.
31. A method of treating or preventing a pathological condition associated with an ORFX-associated disorder in a subject, the method comprising administering to said subject an antibody of claim 12 in an amount sufficient to alleviate or prevent said pathological condition.
32. The method of claim 31, wherein said subject is a human.